EXHIBIT 1

TABLE 1

CLAIM TERMS FROM THE ASSERTED PATENTS
NETRATINGS, INC. AND/OR COREMETRICS, INC. CONTEND REQUIRE CONSTRUCTION[1]

Asserted U.S. Patent(s) Nos. and Claims[2]	Term	NETRATINGS' PROPOSED CONSTRUCTION AND INTRINSIC EVIDENCE	COREMETRICS' PROPOSED CONSTRUCTION AND INTRINSIC EVIDENCE
5,675,510 [1, 2, 6]; 6,115,680 [1, 3, 11, 12]	local computer use meter/user meter	**a software program designed to collect information regarding the use of other software programs on a computer on which the software program is installed** *See, e.g.,* '510 patent, col. 1, ll. 36-42, ll. 65-67; col. 2, ll. 21-22; col. 5, ll. 6-11; '680 Patent, col. 2, ll. 28-29; col. 5, ll. 44-49. *See also* '510 patent, Response to Office Action, 12/26/96, p. 3.	**a device within the client computer that monitors and records occurrences that cause operating system software, such as Microsoft Windows, to generate an internal message as a direct result of a call to an operating system function** **Intrinsic Evidence**: '510 patent: Col. 1:51-67; Col. 2:1-11; Col. 5:64-67; Col. 6:1-3, Col. 6:14-Col. 8:8; '680 patent: Col. 1:59-Col. 2:5; Col. 2: 6-18; Col. 6:32-Col. 8:24; Col. 11:32-47; (NR-CORE000393-95; December 26, 1996 Response to Office Action, p. 3-5); (NR-CORE000345-348; Office Action, p. 2-5); (NR-CORE000352-79, Hecht et al. (5,032,979)); (NR-CORE000306-18, Baran (5,406,269)); Office Action, dated 6/17/99, p. 2-5 (NR-CORE000894-97; Shear (4,827,508) (NR-CORE001001-001021); Response Under 37 C.F.R. § 1.11, p. 4 (NR-CORE001030); Office Action dated 12/03/99 pages 2-5 (NR-CORE001034-001037).
5,675,510 [1]; 6,115,680[1, 4, 10-12, 15, 21,	log of predetermined [machine operation]	**a record of data regarding the occurrence of pre-selected potential events [related to machine operations]**	Log of predetermined machine operation events means: **a file stored on the hard drive of the computer that**

[1] The patents asserted in this action by NetRatings, Inc. are: U.S. Patent Nos. 5,675,510; 6,115,680; 6,138,155; 6,763,386; 6,108,637.

[2] Claims in which the term to be construed appear are listed in brackets following the patent number. Unless otherwise indicated, the constructions set forth by the parties are intended to apply to every instance of the construed term within each patent for which the term is listed. To the extent a different form of a term appears elsewhere in the claims, the construction provided is intended to apply, appropriately modified to account for the difference in form.

Asserted U.S. Patent(s) Nos. and Claims[2]	Term	NETRATINGS' PROPOSED CONSTRUCTION AND INTRINSIC EVIDENCE	COREMETRICS' PROPOSED CONSTRUCTION AND INTRINSIC EVIDENCE
22]	events	*See, e.g.*, '510 patent, col. 2, ll. 1-7; ll. 21-50; col. 3, ll. 40-65; col. 4, ll. 56-64; Fig. 1; '680 patent, col. 2, ll. 9-15; ll. 28-56; col. 4, ll. 6-31; col. 5, ll. 24-32; Fig. 1. *See also* '510 patent, Response to Office Action, 12/26/96, p. 3.	**contains time sequential entries for two or more "predetermined machine operation events," each entry including two or more attributes of the associated event. A "predetermined machine operation event" is an occurrence—selected in advance by the person or entity seeking to monitor particular computer use—that causes operating system software, such as Microsoft Windows, to generate an internal message as a direct result of a call to an operating system function.** Log of predetermined events means: **a file stored on the hard drive of the computer that contains time sequential entries for two or more "predetermined events," each entry including two or more attributes of the associated event. "Predetermined events" means occurrences that cause operating system software, such as Microsoft Windows, to generate an internal message as a direct result of a call to an operating system function, and occurrences that cause interception of character strings sent to a communication port or entered into an edit box, where the occurrences of interest are selected in advance by the person or entity seeking to monitor particular computer use.** **Intrinsic Evidence**: '510 patent: Col. 2:1-11, 28-33; Col. 3:53-65; Col. 7:16-18, 32; Col. 8:10-15; Col. 9:22-35, 38-45; abstract; Col. 1:51-67; Col. 5:64-67; Col. 6:1-3, Col. 6:14-Col. 8:8; Col. 8:10-30; Col. 9:22-35, 393-305; (NR-CORE000393-95; December 26, 1996 Response to Office Action, p. 3-5).

Asserted U.S. Patent(s) Nos. and Claims[2]	Term	NETRATINGS' PROPOSED CONSTRUCTION AND INTRINSIC EVIDENCE	COREMETRICS' PROPOSED CONSTRUCTION AND INTRINSIC EVIDENCE
			Intrinsic Evidence: '680 patent: abstract; Col. 1:59-Col. 2:5; Col. 2:6-19, 35-61; Col. 3:13-16; Col. 4:14-65; Col. 6:32-Col.11:22; Col. 11:32-47, 49-56; Office Action, dated 6/17/99, p. 2-5 (NR-CORE000894-97; Shear (4,827,508) (NR-CORE001001-001021); Response Under 37 C.F.R. § 1.11, p. 4 (NR-CORE001030); Office Action dated 12/03/99 pages 2-5 (NR-CORE001034-001037); January 14, 2000 Response to Office Action, p. 7-13 (NR-CORE001061-1067).
5,675,510 [9, 11]	dictionary	**a database or file containing entries used to interpret or correlate data** *See, e.g.,* '510 patent, col. 5, ll. 27-40; Fig. 1. *See also* '510 patent, Response to Office Action, 12/26/96, p. 4.	**a file containing entries used to correlate raw data to useful information** **Intrinsic Evidence**: '510 patent: Col. 5:27-33, 37-46; NR000394; December 26, 1996 Response to Office action, p. 4.
5,675,510 [1] 6,115,680 [1, 12]	installed	**placed on and ready for use by a computer** *See, e.g.,* '510 patent, col. 2, ll. 21-23; col. 4, ll. 60-64; '680 patent, col. 2, ll. 28-30; col. 5, ll. 28-31.	**resident on the hard drive of, and ready for execution by, the computer.** **Intrinsic Evidence**: '510 patent: Col. 2:21-23; Col. 2:50-55; Col. 3:6-16, 39-47; Col. 4:59-64; Col. 5:11-15, 64-67; Col. 9:37-39; '680 patent: Col. 2:28-30; Col. 3:17-22, 39-49; Col. 4:6-15; Col. 5:27-31, 48-52; Col. 6:32-35; (NR000393-95; December 26, 1996 Response to Office Action, p. 3-5); (NR-CORE000345-48; Office Action, p. 2-5); (NR-CORE000352-79, Hecht et al. (5,032,979)); (NR-CORE000306-18, Baran (5,406,260)); Office Action, dated 6/17/99, p. 2-5 (NR-CORE000894-97); Shear (4,827,508) NR-CORE001001-001021)); Response Under 37 C.F.R. § 1.11, p. 4 (NR-CORE001030); Office Action dated 12/03/99 pages 2-5 (NR-CORE001034-001037);

Asserted U.S. Patent(s) Nos. and Claims[2]	Term	NETRATINGS' PROPOSED CONSTRUCTION AND INTRINSIC EVIDENCE	COREMETRICS' PROPOSED CONSTRUCTION AND INTRINSIC EVIDENCE
			January 14, 2000 Response to Office Action, p. 7-13 (NR-CORE001061-1067).
5,675,510 [1, 11] 6,115,680 [1, 3,12, 14, 15] 6,138,155 [10, 48, 51] 6,763,386 [1, 4, 5, 11, 13, 16, 17, 23] 6,108,637 [38-41]	stored/ stores / storing	**placed/places/placing in memory or on a mass storage device** *See, e.g.*, '510 patent, col. 2, ll. 57-61; '680 patent, col. 3, ll. 23-27; '637 patent, col. 8, ll. 55-60; col. 13, ll. 37-40; col. 18, ll. 15-27; '386 patent, col. 5, ll. 6-7; col. 6, ll. 57-60; col. 8, 23-24; '155 patent, col. 5, ll. 1-3; col. 6, ll. 53-54; col. 8, ll. 18-19.	**copied/copies/copying to the hard drive of the computer** **Intrinsic Evidence**: '510 patent: Col. 3:9-21; Col. 4:56-57; Col. 5:33-39; '680 patent, Col. 3:23-27, 42-49, 51-55; Col. 5:15-19, 24-25; Col. 6:3-9, 20-31; (NR-CORE000393-95; December 26, 1996 Response to Office Action, p. 3-5); (NR-CORE000345-48; Office Action, p. 2-5); (NR-CORE000352-79, Hecht et al. (5,032,979)); (NR-CORE000306-18, Baran (5,406,269)).
5,675,510 [1]	identify titles of open windows	**contains characters identifying open windows** *See, e.g.*, '510 patent, col. 4, ll. 11-63. *See also* '510 patent, Response to Office Action, 12/26/96, pp. 3-4.	**sets forth the full text that appears in the title bars of open windows** **Intrinsic Evidence**: '510 patent: Col 2:1-7, 21-33; Col. 4:12-24; Col. 9:38-44; (NR-CORE000393-95; December 26, 1996 Response to Office Action, p. 3-5).
5,675,510 [1]	reflects a log of titles of world wide web pages	**reflects a record of characters useful in identifying world wide web pages** *See, e.g.*, '510 patent, col. 4, ll. 11-63; col. 9, ll. 40-43. *See also* '510 patent, Response to Office Action, 12/26/96, pp. 3-4.	**includes two or more entries, each entry setting forth the full text that appears in the title bar of the browser window in which a world wide web page is displayed** **Intrinsic Evidence**: '510 patent: Col 2:1-7, 21-33; Col. 4:12-24; Col. 9:38-44; (NR-CORE000393-95; December 26, 1996 Response to Office Action, pp. 3-5).
5,675,510 [1, 11] 6,115,680 [1,	generate/ generates/ generating	**create/creates/creating** *See, e.g.*, '510 patent, col. 4, ll. 52-64; '680 patent, col. 5,	**creating and holding in temporary memory (RAM)** **Intrinsic Evidence**: '510 patent: Col. 5:14-15; Col. 8:2-

Asserted U.S. Patent(s) Nos. and Claims[2]	Term	NETRATINGS' PROPOSED CONSTRUCTION AND INTRINSIC EVIDENCE	COREMETRICS' PROPOSED CONSTRUCTION AND INTRINSIC EVIDENCE
12] 6,138,155 [1, 8, 21, 22, 33, 38, 48, 51]		ll. 20-32; '155 patent, col. 1, ll. 11-17, 35-46; col. 4, 23-37.	8; '680 patent: Col. 5:52-53; Col. 8:16-24; (NR-CORE000393-95; December 26, 1996 Response to Office Action, p. 3-5); (NR-CORE000345-48; Office Action, p. 2-5); (NR-CORE000352-79, Hecht et al. (5,032,979)); (NR-CORE000306-18, Baran (5,406,269)).
6,115,680 [1, 12]	identifies character strings reflecting on-line activity	**identifies a group of characters that reflect activity performed on-line** *See, e.g.*, '680 patent, col. 2, ll. 41-56.	**sets forth the character sequences that were intercepted by the use meter while being sent to a communication port or entered into an edit box** **Intrinsic Evidence**: '680 patent: Col 2:41-61; Col. 3:13-16; Col. 11:49-56; Office Action, dated 6/17/99, p. 2-5; (NR-CORE000894-97; Shear (4,827,508) (NR-CORE001001-001021); Response Under 37 C.F.R. § 1.11, p. 4 (NR-CORE001030); Office Action dated 12/03/99, p. 2-5 (NR-CORE001034-001037); January 14, 2000 Response to Office Action, p. 7-13 (NR-CORE001061-1067).
6,115,680 [3, 12, 14, 22]	logs/ logging (verb)	**records/recording** *See, e.g.*, '680 patent, col. 2, ll. 28-56; col. 4, ll. 6-31; col. 5, ll. 24-32; Fig 1.	**enters/entering into a "log."** **Intrinsic Evidence:** (NR-CORE000393-95; December 26, 1996 Response to Office Action, p. 3-5); Office Action, dated 6/17/99, p. 2-5 (NR-CORE000894-97); Shear (4,827,508) (NR-CORE001001-001021); Response Under 37 C.F.R. § 1.11, p. 4 (NR-CORE001030); Office Action dated 12/03/99 pages 2-5 (NR-CORE001034-001037); January 14, 2000 Response to Office Action, p. 7-13 (NR-CORE001061-1067).
6,115,680 [11, 22]	encrypt encrypted encrypting	**encode data to prevent unauthorized access** *See, e.g.*, '680 Patent, col. 3, ll. 17-28.	**transforms to hide original information such that only an authorized entity may, typically through the use of a secret value called a key, reverse transform and access**

Asserted U.S. Patent(s) Nos. and Claims[2]	Term	NETRATINGS' PROPOSED CONSTRUCTION AND INTRINSIC EVIDENCE	COREMETRICS' PROPOSED CONSTRUCTION AND INTRINSIC EVIDENCE
			that information **Intrinsic Evidence**: '680 patent: Col. 3:17-27.
6,138,155 [1-4, 6-10, 18, 19, 21, 26, 30, 33-36, 38, 41, 45, 48-53]; 6,763,386 [1, 2, 4, 5, 8, 10-14, 16, 17, 20, 22, 23, 24]	resource	**computer data or program, such in the form of a Web page or part of a Web page, images, an ad banner, or an interactive game** *See, e.g.,* '386 patent, col. 5, ll. 15-21; col. 7, ll. 6-12; col. 8, ll. 16-22; col. 13, ll. 54-61; '155 patent, col. 5, ll. 11-17; col. 7, ll. 10-16; col. 8, ll. 12-18; col. 13, ll. 58-65.	**a file, such as a web page or ad banner, that is located on a server and that is distinct from a tracking program or an executable program** **Intrinsic Evidence**: '386 patent: Col. 1:1, 18; Col. 4:12-17; 44-45; Col. 5:16-21; Col. 8:16-19.
6,138,155 [1-4, 6-8, 25, 26, 29, 33-36, 38, 41, 44, 48, 51]	executable program	**computer program that can be run on a computer** *See, e.g.,* '155 patent, col. 5, ll. 27-48; col. 8, ll. 13-59; col. 10, ll. 58-65.	**a pre-existing sequence of computational instructions written in a programming language, intended and ready to be run in the client machine** **Intrinsic Evidence**: '155 patent: abstract; Col. 5:49-50; Col. 17:42-46.
6,138,155 [1, 33, 48, 51]	executable program not being part of the resource	**executable program not contained within the resource** *See, e.g.,* '155 patent, col. 8, ll. 13-59; col. 9, ll. 9-16; col. 10, ll. 27-67; col. 11, ll. 2-19. *See also* '952 patent, Attorney's Statement in Support of Petition to Make Special Under 37 CFR §1.102(d), p. 11.	**all of the pre-existing computational instructions of the "executable program" are found entirely outside the "resource"** **Intrinsic Evidence**: '155 patent: abstract; Col. 4:44-47; Col. 8:16-18.
6,138,155 [25]	Java programming language	**one of the Java family of languages originally developed by Sun Microsystems used to create computer programs, and other companies' versions thereof**	**a programming language created by Sun Microsystems, which includes the following versions: Java 1.0 (1996); Java 1.1 (1997); Java 1.2 (1998; a.k.a. "Java 2"); Java 1.3 (2000; a.k.a. "Java 2 version 1.3");**

Asserted U.S. Patent(s) Nos. and Claims[2]	Term	NETRATINGS' PROPOSED CONSTRUCTION AND INTRINSIC EVIDENCE	COREMETRICS' PROPOSED CONSTRUCTION AND INTRINSIC EVIDENCE
		See, e.g., '155 patent, col. 9, l. 53 – col. 10, l. 64.	**Java 1.4 (2001; a.k.a. "Java 2, version 1.4"); Java 1.5 (2004; a.k.a. "Java 2, version 1.5.0" and "Java 5.0"); and subsequent versions of the foregoing** **Intrinsic Evidence**: '155 patent: Col. 9:53-56; Col. 10:15-22, 36-40, 52-56.
6,138,155 [1, 10, 33, 48]	client identifying indicia	**any information that can be used to associate data with a client** *See, e.g.,* '155 patent, col. 4, ll. 28-37; col. 6, l. 48 - col. 7, l. 5; col. 10, l. 65 - col. 11, l. 40.	**any information that can be used to ascribe two or more events to the same client** **Intrinsic Evidence**: '155 patent: Col. 5:44-47; Col. 10:65-Col. 11:11; Col. 11:16-22; (NR-CORE0001265; "Attorney's Statement In Support of Petition to Make Special Under 37 CFR § 1.102(d), p. 7).
6,138,155 [2, 4, 6, 7, 8, 34]	user action(s)	**performance of an action by a user** *See, e.g.,* '155 patent, col. 4, ll. 28-66; col. 5, ll. 8-17; col. 8, ll. 12-59; col. 13, ll. 44-61; col. 19, ll. 9-46.	**the activation of an input device by a user** **Intrinsic Evidence**: '155 patent: Col. 13:25-50; Col. 14:5-20; Fig. 5; Fig. 6.
6,138,155 [18]	data representative of a plurality of preferences of a user	**information from which a user's preferences can be determined** *See, e.g.,* '155 patent, col. 2, ll. 1-55; col. 12, l. 58- col. 13, l. 24; col. 13, l. 62 - col. 14, l. 26; col. 14, l. 52 – col. 15, l. 10.	**information describing two or more items that a user favors over other alternatives** **Intrinsic Evidence**: '155 patent: Col. 2:1-55; Col. 13:4-11.
6,138,155 [19]	data representative of a plurality of interests of a user	**information from which a user's interests can be determined** *See, e.g.,* '155 patent, col. 2, ll. 1-55; col. 12, l. 58 - col. 13, l. 24; col. 13, l. 62 - col. 14, l. 26; col. 14, l. 52 – col. 15, l. 10.	**information describing two or more items that a user is interested in** **Intrinsic Evidence**: '155 patent: Col. 1:61-67; Col. 2:1-55; Col. 14:1-48.

Asserted U.S. Patent(s) Nos. and Claims[2]	Term	NETRATINGS' PROPOSED CONSTRUCTION AND INTRINSIC EVIDENCE	COREMETRICS' PROPOSED CONSTRUCTION AND INTRINSIC EVIDENCE
6,138,155 [21]	does not require the active participation of a user	**does not require a user to specifically enter resource use data** *See, e.g.,* '155 patent, col. 2, ll. 1-55; col. 12, l. 58 - col. 13, l. 24; col. 13, l. 62 - col. 14, l. 26; col. 14, l. 52 – col. 15, l. 10; col. 17, ll. 15-33. *See also* '952 patent, Attorney's Statement in Support of Petition to Make Special Under 37 CFR §1.102(d), p. 8.	**does not require the user to activate an input device after the resource has been downloaded to the first client** **Intrinsic Evidence**: '155 patent: Col. 2:1-55; (NR-CORE0001265-66; Attorney's Statement In Support of Petition to Make Special Under 37 CFR § 1.102(d), p. 7-8); (NR-CORE0001331-40; "Core Java" by Gary Cornell and Cay S. Horstmann).
6,763,386 [1, 3, 9, 13, 15, 21]	tracking program	**computer readable code that monitors use of a computer** *See, e.g.,* '155 patent, col. 8, ll. 13-59; col. 10, ll. 58-65.	**a pre-existing sequence of computational, executable instructions written in a programming language, intended to be run in the client machine, for observing and recording a plurality of selected occurrences over time** **Intrinsic Evidence**: '386 patent: Col. 5:53-63; Col. 8:43-49; Col. 9:14-56; Col. 11:29-40; Col. 12:23-43; Col. 13:28-31, 48-53; Col. 14:33-52; Col. 16:44-54; Col. 17:5-37.
6,763,386 [3, 15]	embedded	**contained within or incorporated by reference** *See, e.g.,* '386 patent, col. 3, ll. 42-47; col. 4, ll. 42-55; col. 5, ll. 22-41; col. 8, ll. 49-63. *See also* '952 patent, Attorney's Statement in Support of Petition to Make Special Under 37 CFR §1.102(d), pp. 8, 10-11.	**entirely contained or encapsulated within** **Intrinsic Evidence**: '386 patent: Col. 9:4-7; Col. 4:47-49; Col. 8:16-19, 41-43.
6,763,386 [6, 18]	monitoring input device events	**monitoring operations performed using an input device**	**monitoring operations performed on an input device as**

Asserted U.S. Patent(s) Nos. and Claims[2]	Term	NETRATINGS' PROPOSED CONSTRUCTION AND INTRINSIC EVIDENCE	COREMETRICS' PROPOSED CONSTRUCTION AND INTRINSIC EVIDENCE
		See, e.g., '386 patent, col. 4, ll. 55-61; col. 8, ll. 27-30 and 43-49; col. 9, ll. 8-13.	**they are performed** **Intrinsic Evidence**: '386 patent: abstract; Col. 4:55-58; Col. 8:23-30, 43-49.
6,763,386 [1, 4, 5, 11-13, 16, 17, 23, 24]	resource use data	**information describing or derived from use of a resource** *See, e.g.*, '386 patent, col. 1, ll. 15-22; col. 4, l. 47- col. 5, l. 11; col. 8, ll. 16-31; col. 9, l. 6-26; col.11, ll. 23-43; col. 12, l. 61 - col. 13, l. 26; col. 14, l. 31 - col. 14, l. 14.	**information describing or derived from two or more actions taken by a user of a client computer while using a "resource"** **Intrinsic Evidence**: '386 patent: Col. 1:1, 18; Col. 4:12-17; 44-45; Col. 5:16-21; Col. 8:16-19; Col. 9:14-56; Col. 11:29-40; Col. 12:23-43; Col. 13:28-31, 48-53; Col. 14:33-52
6,763,386 [1, 13]	monitor interaction through the client computer with at least one of the first resource and one or more second resources	**monitor interaction through the user computer with a first or second resource** *See, e.g.*, '386 patent, col. 2, l. 61 – col. 3, l. 22; col. 8, ll. 16-31; col. 13, l. 56 – col. 14, l. 55, col. 17, ll. 19-37; col. 19, ll. 26-33.	**monitor the user's interaction with at least two distinct "resources"** **Intrinsic Evidence**: '386 patent: Col. 3:4-14, Col. 13:28-Col. 14:25; Col. 14:31-52.
6,763,386 [10, 22]	monitoring details of choices made by a user	**monitoring details of two or more choices made by a user** *See, e.g.*, '386 patent, col. 4, ll. 33-64; col. 8, ll. 16-64. *See also* '952 patent, Attorney's Statement in Support of Petition to Make Special Under 37 CFR §1.102(d), p. 11.	**monitoring two or more aspects of two or more selections made by a user** **Intrinsic Evidence**: '386 patent: Col. 4:34-42; Col. 4:55-60; Col. 8:26-30, 40-46; Col. 11:29-43; Col. 14:9-27, 39-53.
6,763,386 [10, 22]	choices being associated with at	**choices being associated with a first or second resource**	**choices being made in connection with each of at least**

Asserted U.S. Patent(s) Nos. and Claims[2]	Term	NETRATINGS' PROPOSED CONSTRUCTION AND INTRINSIC EVIDENCE	COREMETRICS' PROPOSED CONSTRUCTION AND INTRINSIC EVIDENCE
	least one of the first resource and the one or more second resources	*See, e.g.,* '386 patent, col. 4, ll. 33-64; col. 8, ll. 16-64.	**two distinct resources** **Intrinsic Evidence**: '386 patent: Col. 3:4-14, Col. 13:28-Col. 14:25; Col. 14:31-52.
6,763,386 [13] 6,108,637 [57-60, 62-65]	computer usable medium computer readable medium	**one or more devices on which data may be stored in a form a computer can use or read** *See, e.g.,* '386 patent, col. 6, l. 52 - col. 7, l. 9; col. 7, l. 40 - col. 8, l. 8; col. 8, ll. 31-40; col. 9, l. 27-56; Figs. 2 and 3; '637 Patent, col. 2, ll. 6-36; col. 10, ll. 22-58; col. 11, ll. 38-56; col. 23, ll. 14-26.	**a single computer usable/ readable storage device**
6,763,386 [13]	program code which, when executed on a computerized device, causes the computerized device to execute, in a computer network comprising one or more servers and one or more clients, a method	**program code that, when executed on one or more computerized devices in a network, causes the computerized device(s) to perform the method set forth in the claim** *See, e.g.,* '386 patent, col. 6, l. 52 - col. 7, l. 9; col. 7., l. 40 - col. 8, l. 8; col. 8, ll. 31-40; col. 9, ll. 27-56; Figs. 2 and 3.	**the program code that, when executed on a computer in a network, causes that computer to perform the method set forth in the claim** **Intrinsic Evidence**: '386 patent: Col. 8:41-63; Col. 12:23-60.
6,108,637 [11, 12, 16, 28, 33, 57, 58, 62]	characteristic of a content display	**characteristic of a content display:** **a characteristic of any sensory image produced by a device or a characteristic of data used to produce a sensory image on a device** **characteristic:**	Coremetrics contends that the term "characteristic" is indefinite, and that the phrase "characteristic of a content display" is therefore indefinite as well. **Intrinsic Evidence**: (NR-CORE000616; March 3, 1999 Office Action); (NR-CORE000643; June 3, 1999

Asserted U.S. Patent(s) Nos. and Claims[2]	Term	NETRATINGS' PROPOSED CONSTRUCTION AND INTRINSIC EVIDENCE	COREMETRICS' PROPOSED CONSTRUCTION AND INTRINSIC EVIDENCE
		a distinguishing attribute, element, trait, quality or property *See, e.g.,* '637 patent, col. 7, ll. 4-30; col. 10, ll. 15-21; col. 13, l. 59 - col. 15, l. 63; col. 16, l. 5 – col. 17, l. 6; col. 17, l. 59 - col. 18, l. 10; col. 18, l. 50 - col. 19, l. 24; Figs. 4A, 4B, 4C. *See also* '637 patent, Office Action, 3/3/99, p. 2, ¶ 6; Response to Office Action, 6/3/99, p. 6; Office Action, 8/17/99, p. 3.	Response to Office Action); (NR-CORE000673; August 17, 1999 Office Action).
6,108,637 [11, 12, 16 ,18 ,25, 28, 30, 33, 36, 57-60, 62, 65]	content display	**See construction above for "characteristic of a content display."**	**presentation of content so that it is visible to a user** **Intrinsic Evidence:** '637 patent: Col. 3:25-36; Col. 4:20-26; Col. 6:44-48; Col. 7:4-30; Col. 10:14-17; (NR-CORE000648; June 3, 1998 Response to Office Action, p. 11); (NR-CORE000592-000605, Curran et al.).
6,108,637 [11, 13, 16 ,18, 30, 33, 36, 40, 57, 59, 62, 64, 65]	display of content	**production of any sensory image** *See, e.g.,* '637 patent, col. 6, ll. 43-56; col. 10, ll. 15-21; col. 10, ll. 26-29.	[Note: Coremetrics contends that "display of content" has the same definition as "content display" (see immediately above).] **Presentation of content so that it is visible to a user** **Intrinsic evidence:** '637 patent: Col. 3:25-36; Col. 4:20-26; Col. 6:44-48; Col. 7:4-30; Col. 10:14-17; (NR-CORE000648; June 3, 1998 Response to Office Action, p. 11); (NR-CORE000592-000605, Curran et al.).
6,108,637 [59]	begin executing when the beginning of a display of the content is	**begin executing when it is determined that the content is beginning to be displayed** *See, e.g.,* '637 patent, col. 11, ll. 57 - col. 12, l. 39; col.	**starts running only after it is determined that the content to be monitored is fully visible to the user** **Intrinsic Evidence**: '637 patent: Col. 13:51-58.

Asserted U.S. Patent(s) Nos. and Claims[2]	Term	NETRATINGS' PROPOSED CONSTRUCTION AND INTRINSIC EVIDENCE	COREMETRICS' PROPOSED CONSTRUCTION AND INTRINSIC EVIDENCE
	ascertained	12, ll. 59-67; col 13, ll. 31-58; col. 14, ll. 27-40; col. 16, ll. 17-50.	
6,108,637 [59]	stop executing when the end of a display of the content is ascertained	**stop executing when it is determined that the content is no longer being displayed** *See, e.g.,* '637 patent, col. 11, l. 57 - col. 12, l. 39; col. 12, ll. 59-67; col 13, ll. 31-58; col. 14, ll. 27-40; col. 16, ll. 17-50.	**stops running only after it is determined that the content to be monitored is no longer fully visible to the user** **Intrinsic Evidence**: '637 patent: Col. 13:51-58.

TABLE 2

IDENTIFICATION OF 35 U.S.C. 112 (6) ISSUES

With respect to the claim elements contained in this Table 2, both NetRatings and Corematrics agree that each element which begins "means for" is governed by 35 U.S.C. 112(6). These are numbers 1, 3, 5, 7, 9-11, 13, 15, 17, 19-20, 22-28 on the Table. However, Corematrics contends that certain other elements from the asserted patents should also be governed by 35 U.S.C. 112(6). NetRatings disagrees with Corematrics' contention. The elements about which there is disagreement as to the appropriate treatment are numbers 2, 4, 6, 8, 12, 14, 16, 18, 21, 29-33 on the Table.

No.	Asserted U.S. Patent(s) Nos. and Claims	Element/Term	NetRatings' Designation of Function, Structure and Intrinsic Evidence, Where Applicable	Corematrics' Designation of Function, Structure and Intrinsic Evidence
1.	6,108,637 [11]	means for monitoring the change in time of a characteristic of a content display	**Function:** monitoring the change in time of a characteristic of a content display **Structure:** A set of computer instructions as described in the specification sections cited below, which can be embodied in one or more computer programs, which cause one or more computer systems to perform the recited function, and which can be implemented using any appropriate computer language, and all structural equivalents of such set of computer instructions. **Specification citations:** Col. 7, ll. 66 - Col. 8, l. 5; Col. 8, ll. 29-37; Col. 10, l. 58 - Col. 11, l. 2; Col. 11, ll. 9-14, 38-67; Col. 12, ll. 9-36; Col. 13, ll. 17-21; Col. 13, ll. 35-40; Col. 14, ll. 27-31; Col. 16, ll. 13-38; Col. 17, ll. 11-13,. 21-22, 29-34, 39-55; Col. 12, ll. 1-9; Col. 23, ll. 1-9; Col. 25, ll. 38-45; Figs. 3B, 5C, 6D.	This claim element is governed by 35 U.S.C. § 112(6). **Function**: The function of this claim element is "monitoring the change in time of a characteristic of a content display." Corematrics contends that the term "characteristic" is indefinite, rendering this claim element indefinite as well. **Corresponding structure** : The only "structure" described in the specification of the patent for performing certain types of monitoring is a generic, unspecified Java Applet to deliver both content and Java code that performs the monitoring using pre-existing and unspecified Java methods. The specification fails to describe any other corresponding structure for this element, fails to provide any example of the actual code that would be contained within the generic Java Applet mentioned, and fails to provide further explanation of what other code could be used or what other types of "monitoring information" could be gathered or produced by that code. For these reasons, Corematrics believes this claim to be indefinite,

No.	Asserted U.S. Patent(s) Nos. and Claims	Element/Term	NetRatings' Designation of Function, Structure and Intrinsic Evidence, Where Applicable	Corematrics' Designation of Function, Structure and Intrinsic Evidence
				nonenabled and invalid for failure to disclose the best mode. **Intrinsic evidence**: '637 patent: Col. 11:57-67; Col. 12:1-8, 15-24; Col. 13:37-40; Col. 13:51-58; Col. 14:31-40; Col. 16:17-27; Col. 17:11-13; Col. 17:29-33; Col. 20:4-12; Col. 25:13-23; (NR-CORE00691; 964); (NR-CORE000710--711; 713; October 22, 1999 Response to Office Action, p. 12-13; 15); (NR-CORE000616; March 3, 1999 Office Action); (NR-CORE000643; June 3, 1999 Response to Office Action); (NR-CORE000673; August 17, 1999 Office Action).
2.	6,108,637 [57]	instructions for monitoring the change in time of a characteristic of a content display	**Function:** monitoring the change in time of a characteristic of a content display **Structure:** Computer code encoded on a computer readable medium that, when executed by a computer system, performs the recited function using one or more of the methods disclosed in the specification sections: Col. 7, ll. 66 - Col. 8, l. 5; Col. 8, ll. 29-37; Col. 10, l. 58 - Col. 11, l. 2; Col. 11, ll. 9-14, 38-67; Col. 12, ll. 9-36; Col. 13, ll. 11-67; Col. 13, ll. 35-40; Col. 14, l. 1- Col. 18, l. 10; Col. 12, ll. 1-9; Col. 23, ll. 1-9; Col. 25, ll. 38-45; Figs. 3B, 5C, 6D. The identified structure also includes all equivalents thereto.	This claim element is governed by 35 U.S.C. § 112(6). **Function**: same as element 1. **Structure**: same as element 1. **Intrinsic evidence**: '637 patent: Col. 11:57-67; Col. 12:1-8, 15-24; Col. 13:37-40; Col. 13:51-58; Col. 14:31-40; Col. 16:17-27; Col. 17:11-13; Col. 17:29-33; Col. 20:4-12; Col. 25:13-23; (NR-CORE000650-653; June 3, 1999 Response to Office Action, p.15-16); (NR-CORE000718; Reasons for Allowance); (NR-CORE000616; March 3, 1999 Office Action); (NR-CORE000643; June 3, 1999 Response to Office Action); (NR-CORE000673; August 17, 1999 Office Action)

No.	Asserted U.S. Patent(s) Nos. and Claims	Element/Term	NetRatings' Designation of Function, Structure and Intrinsic Evidence, Where Applicable	Corematrics' Designation of Function, Structure and Intrinsic Evidence
3.	6,108,637 [16, 28, 33]	means for monitoring the change in time of a characteristic of the content display	**Function:** monitoring the change in time of a characteristic of the content display **Structure:** A set of computer instructions as described in the specification sections cited below, which can be embodied in one or more computer programs, which cause one or more computer systems to perform the recited function, and which can be implemented using any appropriate computer language, and all structural equivalents of such set of computer instructions. **Specification citations:** Col. 7, ll. 66- col. 8, ll. 5; Col. 8, ll. 29-37; Col. 10, ll. 58- Col. 11, ll. 2; Col. 11, ll. 9-14, 38-67; Col. 12, ll. 9-36; Col. 13, ll. 17-21; Col. 13, ll. 35-40; Col. 14, ll. 27-31; Col. 16, ll. 13-38; Col. 17, ll. 11-13; ll. 21-22; ll. 29-34; ll. 39-55; Col. 12, ll. 1-9, Col. 23, ll. 1-9; Col. 25, ll. 38-45; Figs. 3B, 5C, 6D.	This claim element is governed by 35 U.S.C. § 112(6). **Function:** The function of this claim element is "monitoring the change in time of a characteristic of the content display." Corematrics contends that the term "characteristic" is indefinite, rendering this claim element indefinite as well. **Structure**: same as element 1. **Intrinsic evidence**: same as element 1.
4.	6,108,637 [62]	instructions for monitoring the change in time of a characteristic of the content display	**Function:** monitoring the change in time of a characteristic of the content display **Structure:** Computer code encoded on a computer readable medium that, when executed by a computer system, performs the recited function using one or more of the methods disclosed in the specification sections: Col. 7, ll. 66 - Col. 8, l. 5; Col. 8, ll. 29-37; Col. 10, l. 58 - Col. 11, l. 2; Col. 11, ll. 9-14, 38-67; Col. 12, ll. 9-36; Col. 13, ll. 11-67; Col. 13, ll. 35-40; Col. 14, l. 1- Col. 18, l. 10; Col. 12, ll. 1-9; Col. 23, ll. 1-9; Col. 25, ll. 38-45; Figs. 3B, 5C, 6D.	This claim element is governed by 35 U.S.C. § 112(6). **Function**: same as element 3. **Structure**: same as element 1. **Intrinsic evidence**: same as element 2.

No.	Asserted U.S. Patent(s) Nos. and Claims	Element/Term	NetRatings' Designation of Function, Structure and Intrinsic Evidence, Where Applicable	Corematrics' Designation of Function, Structure and Intrinsic Evidence
			The identified structure also includes all equivalents thereto.	
5.	6,108,637 [12]	means for monitoring the change in time of a characteristic of the computer system	**Function:** monitoring the change in time of a characteristic of the computer system **Structure:** A set of computer instructions as described in the specification sections cited below, which can be embodied in one or more computer programs, which cause one or more computer systems to perform the recited function, and which can be implemented using any appropriate computer language, and all structural equivalents of such set of computer instructions. **Specification citations:** Col. 7, ll. 66- col. 8, ll. 5; Col. 8, ll. 29-37; Col. 10, ll. 58- Col. 11, ll. 2; Col. 11, ll. 9-14, 38-67; Col. 12, ll. 9-36; Col. 13, ll. 17-21; Col. 13, ll. 35-40; Col. 14, ll. 27-31; Col. 16, ll. 13-38; Col. 17, ll. 11-13; ll. 21-22; ll. 29-34; ll. 39-55; Col. 12, ll. 1-9, Col. 23, ll. 1-9; Col. 25, ll. 38-45; Figs. 3B, 5C, 6D.	This claim element is governed by 35 U.S.C. § 112(6). **Function**: The function of this claim element is "monitoring the change in time of a characteristic of the computer system." Corematrics contends that the term "characteristic" is indefinite, rendering this claim element indefinite as well. **Structure**: same as element 1. **Intrinsic evidence**: same as element 1.
6.	6,108,637 [58]	instructions for monitoring the change in time of a characteristic of the computer system	**Function:** monitoring the change in time of a characteristic of the computer system **Structure:** Computer code encoded on a computer readable medium that, when executed by a computer system, performs the recited function using one or more of the methods disclosed in the specification sections: Col. 7, ll. 66 - Col. 8, l. 5; Col. 8, ll. 29-37; Col. 10, l. 58 - Col.	This claim element is governed by 35 U.S.C. § 112(6). **Function**: same as element 5. **Structure**: same as element 1. **Intrinsic evidence**: same as element 2.

No.	Asserted U.S. Patent(s) Nos. and Claims	Element/Term	NetRatings' Designation of Function, Structure and Intrinsic Evidence, Where Applicable	Corematrics' Designation of Function, Structure and Intrinsic Evidence
			11, l. 2; Col. 11, ll. 9-14, 38-67; Col. 12, ll. 9-36; Col. 13, ll. 11-67; Col. 13, ll. 35-40; Col. 14, l. 1- Col. 18, l. 10; Col. 12, ll. 1-9; Col. 23, ll. 1-9; Col. 25, ll. 38-45; Figs. 3B, 5C, 6D. The identified structure also includes all equivalents thereto.	
7.	6,108,637 [13, 18, 36]	means for monitoring display of the content	**Function:** monitoring display of the content **Structure:** A set of computer instructions as described in the specification sections cited below, which can be embodied in one or more computer programs, which cause one or more computer systems to perform the recited function, and which can be implemented using any appropriate computer language, and all structural equivalents of such set of computer instructions. **Specification citations:** Col. 7, ll. 66- col. 8, ll. 5; Col. 8, ll. 29-37; Col. 10, ll. 58- Col. 11, ll. 2; Col. 11, ll. 9-14, 38-67; Col. 12, ll. 9-36; Col. 13, ll. 17-21; Col. 13, ll. 35-40; Col. 14, ll. 27-31; Col. 16, ll. 13-38; Col. 17, ll. 11-13; ll. 21-22; ll. 29-34; ll. 39-55; Col. 12, ll. 1-9, Col. 23, ll. 1-9; Col. 25, ll. 38-45; Figs. 3B, 5C, 6D.	This claim element is governed by 35 U.S.C. § 112(6). **Function**: The function of this claim element is "monitoring display of the content." **Structure**: same as element 1. **Intrinsic evidence**: '637 patent: Col. 11:57-67; Col. 12:1-8, 15-24; Col. 13:37-40; Col. 13:51-58; Col. 14:31-40; Col. 16:17-27; Col. 17:11-13; Col. 17:29-33; Col. 20:4-12; Col. 25:13-23; . (NR-CORE00691; 964); (NR-CORE000710--711; 713; October 22, 1999 Response to Office Action, p. 12-13; 15)
8.	6,108,637 [59]	instructions for monitoring display of the content	**This element is not subject to 35 U.S.C. 112(6).** In addition, unless otherwise defined herein in reference to other claim terms, the words in the element have their ordinary meaning as would be understood by those of	This claim element is governed by 35 U.S.C. § 112(6). **Function**: same as element 7.

No.	Asserted U.S. Patent(s) Nos. and Claims	Element/Term	NetRatings' Designation of Function, Structure and Intrinsic Evidence, Where Applicable	Coremetrics' Designation of Function, Structure and Intrinsic Evidence
			ordinary skill in the art at the time of the invention.	**Structure**: same as element 1. **Intrinsic evidence**: '637 patent: Col. 11:57-67; Col. 12:1-8, 15-24; Col. 13:37-40; Col. 13:51-58; Col. 14:31-40; Col. 16:17-27; Col. 17:11-13; Col. 17:29-33; Col. 20:4-12; Col. 25:13-23; (NR-CORE000650-653; June 3, 1999 Response to Office Action, p.15-16); (NR-CORE000718; Reasons for Allowance).
9.	6,108,637 [30]	means for monitoring the display of content to produce monitoring information regarding display of the content	**Function:** monitoring the display of content to produce monitoring information regarding display of the content **Structure:** A set of computer instructions as described in the specification sections cited below, which can be embodied in one or more computer programs, which cause one or more computer systems to perform the recited function, and which can be implemented using any appropriate computer language, and all structural equivalents of such set of computer instructions. **Specification citations:** Col. 7, ll. 66- col. 8, ll. 5; Col. 8, ll. 29-37; Col. 10, ll. 58- Col. 11, ll. 2; Col. 11, ll. 9-14, 38-67; Col. 12, ll. 9-36; Col. 13, ll. 17-21; Col. 13, ll. 35-40; Col. 14, ll. 27-31; Col. 16, ll. 13-38; Col. 17, ll. 11-13; ll. 21-22; ll. 29-34; ll. 39-55; Col. 12, ll. 1-9, Col. 23, ll. 1-9; Col. 25, ll. 38-45; Figs. 3B, 5C, 6D.	This claim element is governed by 35 U.S.C. § 112(6). **Function**: The function of this claim element is "monitoring the display of content to produce monitoring information regarding display of the content." **Structure**: same as element 1. **Intrinsic evidence**: same as element 7.
10.	6,108,637 [18, 36]	means for monitoring display of the	**Function:** monitoring display of the content to produce monitoring information regarding display of the content	This claim element is governed by 35 U.S.C. § 112(6). **Function**: The function of this claim element is

No.	Asserted U.S. Patent(s) Nos. and Claims	Element/Term	NetRatings' Designation of Function, Structure and Intrinsic Evidence, Where Applicable	Coremetrics' Designation of Function, Structure and Intrinsic Evidence
		content to produce monitoring information regarding display of the content	**Structure:** A set of computer instructions as described in the specification sections cited below, which can be embodied in one or more computer programs, which cause one or more computer systems to perform the recited function, and which can be implemented using any appropriate computer language, and all structural equivalents of such set of computer instructions. **Specification citations:** Col. 7, ll. 66- Col. 8, ll. 5; Col. 8, ll. 29-37; Col. 10, ll. 58- Col. 11, ll. 2; Col. 11, ll. 9-14, 38-67Col. 12, ll. 9-36; Col. 13, ll. 17-21; Col. 13, ll. 35-40; Col. 14, ll. 27-31; Col. 16, ll. 13-38; Col. 17, ll. 11-13; ll. 21-22; ll. 29-34; ll. 39-55; Col. 12, ll. 1-9, Col. 23, ll. 1-9; Col. 25, ll. 38-45; Figs. 3B, 5C, 6D.	"monitoring display of the content to produce monitoring information regarding display of the content." **Structure**: same as element 1. **Intrinsic evidence**: same as element 7.
11.	6,108,637 [17]	means for determining the duration of the display of the content	**Function:** determining the duration of the display of the content **Structure:** A set of computer instructions as described in the specification sections cited below, which can be embodied in one or more computer programs, which cause one or more computer systems to perform the recited function, and which can be implemented using any appropriate computer language, and all structural equivalents of such set of computer instructions. **Specification citations:** Col. 7, ll. 66- col. 8, ll. 5; Col. 8, ll. 29-37; Col. 10, ll. 58- Col. 11, ll. 2; Col. 11, ll. 9-14, 38-67Col. 12, ll. 9-36; Col. 13, ll. 17-21; Col. 13, ll. 35-40; Col. 14, ll. 27-31; Col. 16, ll. 13-38; Col. 17, ll. 11-13;	This claim element is governed by 35 U.S.C. § 112(6). **Function:** The function of this claim element is "determining the duration of the display of the content." **Structure**: The only "structure" described in the specification of the patent is a generic, unspecified Java Applet to deliver both content and Java code that somehow uses time stamps, said to be ascertainable through an unspecified method that exists as part of the Java language, to ascertain the beginning or end of a display of content, by determining when the Java Applet starts or stops running. The specification fails to describe any other corresponding structure for this element, fails to provide any example of the actual code that would be

No.	Asserted U.S. Patent(s) Nos. and Claims	Element/Term	NetRatings' Designation of Function, Structure and Intrinsic Evidence, Where Applicable	Corematrics' Designation of Function, Structure and Intrinsic Evidence
			ll. 21-22; ll. 29-34; ll. 39-55; Col. 12, ll. 1-9, Col. 23, ll. 1-9; Col. 25, ll. 38-45; Figs. 3B, 5C, 6D.	contained within the generic Java Applet mentioned, and fails to provide further explanation of what other code could be used to ascertain the end of a display of the content. For these reasons, Corematrics believes this claim to be indefinite, nonenabled and invalid for failure to disclose the best mode. **Intrinsic evidence**: same as element 7.
12.	6,108,637 [63]	instructions for determining the duration of the display of the content	**Function:** determining the duration of the display of the content **Structure:** Computer code encoded on a computer readable medium that, when executed by a computer system, performs the recited function using one or more of the methods disclosed in the specification sections: Col. 7, ll. 66- col. 8, ll. 5; Col. 8, ll. 29-37; Col. 10, ll. 58- Col. 11, ll. 2; Col. 11, ll. 9-14, 38-67Col. 12, ll. 9-36; Col. 13, ll. 13-58; Col. 14, l. 1- Col. 18, l. 10; Col. 12, ll. 1-9, Col. 23, ll. 1-9; Col. 25, ll. 38-45; Figs. 3B, 5C, 6D. The identified structure also includes all equivalents thereto.	This claim element is governed by 35 U.S.C. § 112(6). **Function**: same as element 11. **Structure**: same as element 11. **Intrinsic evidence**: same as element 8.
13.	6,108,637 [13, 29, 34]	means for ascertaining the beginning of a display of the content	**Function:** ascertaining the beginning of a display of the content **Structure:** A set of computer instructions as described in the specification sections cited below, which can be embodied in one or more computer programs, which cause	This claim element is governed by 35 U.S.C. § 112(6). **Function**: The function of this claim element is "ascertaining the beginning of a display of the content."

No.	Asserted U.S. Patent(s) Nos. and Claims	Element/Term	NetRatings' Designation of Function, Structure and Intrinsic Evidence, Where Applicable	Corematrics' Designation of Function, Structure and Intrinsic Evidence
			one or more computer systems to perform the recited function, and which can be implemented using any appropriate computer language, and all structural equivalents of such set of computer instructions. **Specification citations:** Col. 7, ll. 66- col. 8, ll. 5; Col. 8, ll. 29-37; Col. 10, ll. 58- Col. 11, ll. 2; Col. 11, ll. 9-14, 38-67Col. 12, ll. 9-36; Col. 13, ll. 17-21; Col. 13, ll. 35-40; Col. 14, ll. 27-31; Col. 16, ll. 13-38; Col. 17, ll. 11-13; ll. 21-22; ll. 29-34; ll. 39-55; Col. 12, ll. 1-9, Col. 23, ll. 1-9; Col. 25, ll. 38-45; Figs. 3B, 5C, 6D.	**Structure:** same as element 11. **Intrinsic evidence**: same as element 7.
14.	6,108,637 [59]	instructions for ascertaining the beginning of a display of content	**Function:** ascertaining the beginning of a display of content **Structure:** Computer code encoded on a computer readable medium that, when executed by a computer system, performs the recited function using one or more of the methods disclosed in the specification sections: Col. 7, ll. 66- col. 8, ll. 5; Col. 8, ll. 29-37; Col. 10, ll. 58- Col. 11, ll. 2; Col. 11, ll. 9-14, 38-67; Col. 12, ll. 9-36; Col. 13, ll. 17-21; Col. 13, ll. 35-40; Col. 14, l. 1- Col. 18, l. 10; Col. 12, ll. 1-9, Col. 23, ll. 1-9; Col. 25, ll. 38-45; Figs. 3B, 5C, 6D. The identified structure also includes all equivalents thereto.	This claim element is governed by 35 U.S.C. § 112(6). **Function**: same as element 13. **Structure**: same as element 11. **Intrinsic evidence**: same as element 8.

No.	Asserted U.S. Patent(s) Nos. and Claims	Element/Term	NetRatings' Designation of Function, Structure and Intrinsic Evidence, Where Applicable	Coremetrics' Designation of Function, Structure and Intrinsic Evidence
15.	6,108,637 [13, 29, 34]	means for ascertaining the end of a display of the content	**Function:** ascertaining the end of a display of the content **Structure:** A set of computer instructions as described in the specification sections cited below, which can be embodied in one or more computer programs, which cause one or more computer systems to perform the recited function, and which can be implemented using any appropriate computer language, and all structural equivalents of such set of computer instructions. **Specification citations:** Col. 7, ll. 66- col. 8, ll. 5; Col. 8, ll. 29-37; Col. 10, ll. 58- Col. 11, ll. 2; Col. 11, ll. 9-14, 38-67; Col. 12, ll. 9-36; Col. 13, ll. 17-21; Col. 13, ll. 35-40; Col. 14, ll. 27-31; Col. 16, ll. 13-38; Col. 17, ll. 11-13; ll. 21-22; ll. 29-34; ll. 39-55; Col. 12, ll. 1-9, Col. 23, ll. 1-9; Col. 25, ll. 38-45; Figs. 3B, 5C, 6D.	This claim element is governed by 35 U.S.C. § 112(6). **Function**: The function of this claim element is "ascertaining the end of a display of the content." **Structure:** same as element 11. **Intrinsic evidence**: same as element 7.
16.	6,108,637 [59]	instructions for ascertaining the end of a display of the content	**Function:** ascertaining the end of a display of the content **Structure:** Computer code encoded on a computer readable medium that, when executed by a computer system, performs the recited function using one or more of the methods disclosed in the specification sections: Col. 7, ll. 66- col. 8, ll. 5; Col. 8, ll. 29-37; Col. 10, ll. 58- Col. 11, ll. 2; Col. 11, ll. 9-14, 38-67; Col. 12, ll. 9-36; Col. 13, ll. 17-21; Col. 13, ll. 35-40; Col. 14, l. 1- Col. 18, l. 10; Col. 12, ll. 1-9, Col. 23, ll. 1-9; Col. 25, ll. 38-45; Figs. 3B, 5C, 6D. The identified structure also includes all equivalents	This claim element is governed by 35 U.S.C. § 112(6). **Function**: same as element 15. **Structure**: same as element 11. **Intrinsic evidence**: same as element 8 .

No.	Asserted U.S. Patent(s) Nos. and Claims	Element/Term	NetRatings' Designation of Function, Structure and Intrinsic Evidence, Where Applicable	Corematrics' Designation of Function, Structure and Intrinsic Evidence
			thereto.	
17.	6,108,637 [11, 16]	means for evaluating the change in time of the characteristic of the content display to produce monitoring information regarding display of the content	**Function:** evaluating the change in time of a characteristic of the content display to produce monitoring information regarding display of the content **Structure:** A set of computer instructions as described in the specification sections cited below, which can be embodied in one or more computer programs, which cause one or more computer systems to perform the recited function, and which can be implemented using any appropriate computer language, and all structural equivalents of such set of computer instructions. **Specification citations:** Col. 7, ll. 66- col. 8, ll. 5; Col. 8, ll. 29-37; Col. 10, ll. 22-- Col. 11, ll. 2; Col. 11, ll. 9-14, 37-67; Col. 12, ll. 9-36; Col. 13, ll. 17-21; Col. 13, ll. 35-40; Col. 14, ll. 27-31; Col. 16, ll. 13-38; Col. 17, ll. 11-13; ll. 21-22; ll. 29-34; ll. 39-55; Col. 12, ll. 1-9; Col. 20, l. 64-Col. 21, l. 6; Col. 21, ll. 24-26; Col. 22, ll. 17-24; Col. 23, ll. 1-9; Col. 25, ll. 38-45; Figs. 3B, 5C, 6D.	This claim element is governed by 35 U.S.C. § 112(6). **Function**: The function of this claim element is "evaluating the change in time of the characteristic of the content display to produce monitoring information regarding display of the content." Corematrics contends that the term "characteristic" is indefinite, rendering this claim element indefinite as well. **Structure**: same as element 1. **Intrinsic evidence**: same as element 1.
18.	6,108,637 [57, 62]	instructions for evaluating the change in time of the characteristic of the content display to	**Function:** evaluating the change in time of the characteristic of the content display to produce monitoring information regarding display of the content **Structure:** Computer code encoded on a computer readable medium that, when executed by a computer	This claim element is governed by 35 U.S.C. § 112(6). **Function**: same as element 17. **Structure**: same as element 1.

No.	Asserted U.S. Patent(s) Nos. and Claims	Element/Term	NetRatings' Designation of Function, Structure and Intrinsic Evidence, Where Applicable	Corematrics' Designation of Function, Structure and Intrinsic Evidence
		produce monitoring information regarding display of the content	system, performs the recited function using one or more of the methods disclosed in the specification sections: Col. 7, ll. 66- col. 8, ll. 5; Col. 8, ll. 29-37; Col. 10, ll. 22-- Col. 11, ll. 2; Col. 11, ll. 9-14, 37-67; Col. 12, ll. 9-36; Col. 13, ll. 17-21; Col. 13, ll. 35-40; Col. 14, l. 1- Col. 18, l. 10; Col. 12, ll. 1-9; Col. 20, l. 64-Col. 21, l. 6; Col. 21, ll. 24-26; Col. 22, ll. 17-24; Col. 23, ll. 1-9; Col. 25, ll. 38-45; Figs. 3B, 5C, 6D. The identified structure also includes all equivalents thereto.	**Intrinsic evidence**: same as element 2.
19.	6,108,637 [11, 16, 28, 33]	means for evaluating the change in time of the characteristic of the content display to produce monitoring information	**Function:** evaluating the change in time of the characteristic of the content display to produce monitoring information **Structure:** A set of computer instructions as described in the specification sections cited below, which can be embodied in one or more computer programs, which cause one or more computer systems to perform the recited function, and which can be implemented using any appropriate computer language, and all structural equivalents of such set of computer instructions. **Specification citations:** Col. 7, ll. 66- col. 8, ll. 5; Col. 8, ll. 29-37; Col. 10, ll. 22-- Col. 11, ll. 2; Col. 11, ll. 9-14, 37-67; Col. 12, ll. 9-36; Col. 13, ll. 17-21; Col. 13, ll. 35-40; Col. 14, ll. 27-31; Col. 16, ll. 13-38; Col. 17, ll. 11-13;	This claim element is governed by 35 U.S.C. § 112(6). **Function**: The function of this claim element is "evaluating the change in time of the characteristic of the content display to produce monitoring information." Corematrics contends that the term "characteristic" is indefinite, rendering this claim element indefinite as well. **Structure**: same as element 1. **Intrinsic evidence**: same as element 1.

No.	Asserted U.S. Patent(s) Nos. and Claims	Element/Term	NetRatings' Designation of Function, Structure and Intrinsic Evidence, Where Applicable	Corematrics' Designation of Function, Structure and Intrinsic Evidence
			ll. 21-22; ll. 29-34; ll. 39-55; Col. 12, ll. 1-9; Col. 20, l. 64-Col. 21, l. 6; Col. 21, ll. 24-26; Col. 22, ll. 17-24; Col. 23, ll. 1-9; Col. 25, ll. 38-45; Figs. 3B, 5C, 6D.	
20.	6,108,637 [12]	means for comparing the change in time of the characteristic of the content display to the change in time of the characteristic of the computer system to produce the monitoring information	**Function:** comparing the change in time of the characteristic of the content display to the change in time of the characteristic of the computer system to produce the monitoring information **Structure:** A set of computer instructions as described in the specification sections cited below, which can be embodied in one or more computer programs, which cause one or more computer systems to perform the recited function, and which can be implemented using any appropriate computer language, and all structural equivalents of such set of computer instructions. **Specification citations:** Col. 7, ll. 66- col. 8, ll. 5; Col. 8, ll. 29-37; Col. 10, ll. 22-- Col. 11, ll. 2; Col. 11, ll. 9-14, 37-67; Col. 12, ll. 9-36; Col. 13, ll. 17-21; Col. 13, ll. 35-40; Col. 14, ll. 27-31; Col. 16, ll. 13-38; Col. 17, ll. 11-13; ll. 21-22; ll. 29-34; ll. 39-55; Col. 12, ll. 1-9; Col. 20, l. 64-Col. 21, l. 6; Col. 21, ll. 24-26; Col. 22, ll. 17-24; Col. 23, ll. 1-9; Col. 25, ll. 38-45; Figs. 3B, 5C, 6D.	This claim element is governed by 35 U.S.C. § 112(6). **Function**: The function of this claim element is "comparing the change in time of the characteristic of the content display to the change in time of the characteristic of the computer system to produce the monitoring information." Corematrics contends that the term "characteristic" is indefinite, rendering this claim element indefinite as well. **Structure**: same as element 1. **Intrinsic evidence**: same as element 1.
21.	6,108,637 [58]	instructions for comparing the change in time of the characteristic of the content	**Function:** comparing the change in time of the characteristic of the content display to the change in time of the characteristic of the computer system to produce the monitoring information	This claim element is governed by 35 U.S.C. § 112(6). **Function**: same as element 20.

No.	Asserted U.S. Patent(s) Nos. and Claims	Element/Term	NetRatings' Designation of Function, Structure and Intrinsic Evidence, Where Applicable	Corematrics' Designation of Function, Structure and Intrinsic Evidence
		display to the change in time of the characteristic of the computer system to produce the monitoring information	**Structure:** Computer code encoded on a computer readable medium that, when executed by a computer system, performs the recited function using one or more of the methods disclosed in the specification sections: Col. 7, ll. 66- col. 8, ll. 5; Col. 8, ll. 29-37; Col. 10, ll. 22-- Col. 11, ll. 2; Col. 11, ll. 9-14, 37-67; Col. 12, ll. 9-36; Col. 13, ll. 17-21; Col. 13, ll. 35-40; Col. 14, l. 1- Col. 18, l. 10; Col. 12, ll. 1-9; Col. 20, l. 64-Col. 21, l. 6; Col. 21, ll. 24-26; Col. 22, ll. 17-24; Col. 23, ll. 1-9; Col. 25, ll. 38-45; Figs. 3B, 5C, 6D. The identified structure also includes all equivalents thereto.	**Structure**: same as element 1. **Intrinsic evidence**: same as element 2.
22.	6,108,637 [18]	means for transferring the means for monitoring from the content provider site to the content display site in response to the transfer of content from a content provider site	**Function:** transferring the means for monitoring from the content provider site to the content display site in response to the transfer of content from a content provider site **Structure:** A set of computer instructions implemented on a content provider site as described in the specification sections cited below, and a set of computer instructions implemented on a content display site as described in the specification sections cited below, linked by a communication network as described in the specification sections cited below, and all structural equivalents of such sets of computer instructions and communication network. **Specification citations:** Col. 6, ll. 57-67; Col. 7, ll. 1-3; Col. 7, ll. 66-Col. 8, ll. 5; Col. 8, ll. 29-37; Col. 8, ll. 43-	This claim element is governed by 35 U.S.C. § 112(6). **Function**: The function of this claim element is "transferring the means for monitoring from the content provider site to the content display site in response to the transfer of content from a content provider site." **Structure**: same as element 1. **Intrinsic evidence**: '637 patent: Col. 11:57-67; Col. 12:1-8, 15-24; Col. 13:37-40; Col. 13:51-58; Col. 14:31-40; Col. 16:17-27; Col. 17:11-13; Col. 17:29-33; Col. 20:4-12; Col. 25:13-23.

No.	Asserted U.S. Patent(s) Nos. and Claims	Element/Term	NetRatings' Designation of Function, Structure and Intrinsic Evidence, Where Applicable	Corematrics' Designation of Function, Structure and Intrinsic Evidence
			49; Col. 10, ll. 22-67; Col. 11, l. 15-Col. 12, l. 39; Col. 19, l. 66-Col. 21, l. 6; Col. 23, ll. 1-9; Col. 22, ll. 2-11; Col. 23, ll. 56-60; Col. 25, ll. 13-27; Col. 25, ll. 32-45; Figs. 3A-3B, 5A-5C, 6A-6D.	
23.	6,108,637 [30]	means for transferring the means for monitoring from the content provider site to the content display site so that the means for monitoring operates at the content display site	**Function:** transferring the means for monitoring from the content provider site to the content display site so that the means for monitoring operates at the content display site **Structure:** A set of computer instructions implemented on a content provider site as described in the specification sections cited below, and a set of computer instructions implemented on a content display site as described in the specification sections cited below, linked by a communication network as described in the specification sections cited below, and all structural equivalents of such sets of computer instructions and communication network. **Specification citations:** Col. 6, ll. 57-67; Col. 7, ll. 1-3; Col. 7, ll. 66-Col. 8, ll. 5; Col. 8, ll. 29-37; Col. 8, ll. 43-49; Col. 10, ll. 22-67; Col. 11, l. 15-Col. 12, l. 39; Col. 19, l. 66-Col. 21, l. 6; Col. 23, ll. 1-9; Col. 22, ll. 2-11; Col. 23, ll. 56-60; Col. 25, ll. 13-27; Col. 25, ll. 32-45; Figs. 3A-3B, 5A-5C, 6A-6D.	This claim element is governed by 35 U.S.C. § 112(6). **Function**: The function of this claim element is "transferring the means for monitoring from the content provider site to the content display site so that the means for monitoring operates at the content display site." **Structure**: same as element 1. **Intrinsic evidence**: same as element 22.
24.	6,108,637 [20, 35]	means for transferring the monitoring information to a remote site that is	**Function:** transferring the monitoring information to a remote site that is part of the network **Structure:** A set of computer instructions implemented on a content display site as described in the specification	This claim element is governed by 35 U.S.C. § 112(6). **Function**: The function of this claim element is "transferring the monitoring information to a remote

No.	Asserted U.S. Patent(s) Nos. and Claims	Element/Term	NetRatings' Designation of Function, Structure and Intrinsic Evidence, Where Applicable	Coremetrics' Designation of Function, Structure and Intrinsic Evidence
		part of the network	sections cited below, and a set of computer instructions implemented on a remote site as described in the specification sections cited below, linked by a communication network as described in the specification sections cited below, and all structural equivalents of such sets of computer instructions and communication network. **Specification citations:** Col. 6, ll. 57-67; Col. 7, ll. 1-3; Col. 7, ll. 66-Col. 8, ll. 5; Col. 8, ll. 29-37; Col. 8, ll. 43-49; Col. 10, ll. 22-67; Col. 11, l. 15-Col. 12, l. 39; Col. 19, l. 66-Col. 21, l. 6; Col. 23, ll. 1-9; Col. 22, ll. 2-11; Col. 23, ll. 56-60; Col. 25, ll. 13-27; Col. 25, ll. 32-45; Figs. 3A-3B, 5A-5C, 6A-6D.	site that is part of the network." **Structure:** The corresponding "structure" described in the specification of the patent is the use of a spurious http request for a file having a "name" that denotes the monitoring data in some way, or the use of a request for execution of a CGI script in which the input parameter for the request is set to denote the monitoring information in some way. The specification fails to describe any other corresponding structure for this element, fails to provide any example of an actual spurious http request, CGI script request, or the code for server-side programs needed to process the same, and fails to provide further explanation of what other ways that the monitoring information could be transmitted from the user's computer to another computer. For these reasons, Coremetrics believes this claim to be indefinite, nonenabled and invalid for failure to disclose the best mode. **Intrinsic evidence**: '637 patent, Col. 20: 4-12; Col. 20:23-29; Col. 20:57-Col. 21:6.
25.	6,108,637 [36]	means for transferring the monitoring information from the content display site to a remote site of the	**Function:** transferring the monitoring information from the content display site to a remote site of the network that is different from the content provider site **Structure:** A set of computer instructions implemented on a content display site as described in the specification sections cited below, and a set of computer instructions	This claim element is governed by 35 U.S.C. § 112(6). **Function**: The function of this claim element is "transferring the monitoring information from the content display site to a remote site of the network that is different from the content provider site."

No.	Asserted U.S. Patent(s) Nos. and Claims	Element/Term	NetRatings' Designation of Function, Structure and Intrinsic Evidence, Where Applicable	Corematrics' Designation of Function, Structure and Intrinsic Evidence
		network that is different from the content provider site	implemented on a remote site as described in the specification sections cited below, linked by a communication network as described in the specification sections cited below, and all structural equivalents of such sets of computer instructions and communication network. **Specification citations:** Col. 6, ll. 57-67; Col. 7, ll. 1-3; Col. 7, ll. 66-Col. 8, ll. 5; Col. 8, ll. 29-37; Col. 8, ll. 43-49; Col. 10, ll. 22-67; Col. 11, l. 15-Col. 12, l. 39; Col. 19, l. 66-Col. 21, l. 6; Col. 23, ll. 1-9; Col. 22, ll. 2-11; Col. 23, ll. 56-60; Col. 25, ll. 13-27; Col. 25, ll. 32-45; Figs. 3A-3B, 5A-5C, 6A-6D.	**Structure:** The corresponding "structure" described in the specification of the patent is the use of a spurious http request for a file having a "name" that denotes the monitoring data in some way, or the use of a request for execution of a CGI script in which the input parameter for the request is set to denote the monitoring information in some way and in which the script runs on the content provider site and immediately forwards received information to an application manager site. The specification fails to describe any other corresponding structure for this element, fails to provide any example of an actual spurious http request, CGI script request, or the code for server-side programs to process the same, and fails to provide further explanation of what other ways that the monitoring information could be transmitted from the user's computer to another computer. For these reasons, Corematrics believes this claim to be indefinite, nonenabled and invalid for failure to disclose the best mode. **Intrinsic evidence**: same as element 24.
26.	6,108,637 [38, 39, 40]	means for storing monitoring information at the remote site	**Function:** storing monitoring information at the remote site **Structure:** Any appropriate database on a computer system at the remote site as described in the specification sections cited below, and all structural equivalents of such database.	This claim element is governed by 35 U.S.C. § 112(6). **Function**: The function of this claim element is "storing monitoring information at the remote site." **Structure:** The only "structure" described in the specification of the patent is a database on a computer

No.	Asserted U.S. Patent(s) Nos. and Claims	Element/Term	NetRatings' Designation of Function, Structure and Intrinsic Evidence, Where Applicable	Coremetrics' Designation of Function, Structure and Intrinsic Evidence
			Specifications citations: Col. 10, ll. 22-58; Col. 11, ll. 37-56; Col. 21, ll. 18-21; Col. 22, ll. 51-60; Col. 23, ll. 10-14; Figs. 3A-3B, 5A-5C, 6A-6D.	at the application manager's site. **Intrinsic evidence**: '637 patent: Col. 21:18-21; Col. 23:10-13.
27.	6,108,637 [41]	means for accessing the monitoring information stored at the remote site from a site on the network other than the remote site, such that the user at the other site can interact with the monitoring information but cannot modify the monitoring information	**Function:** accessing the monitoring information stored at the remote site from a site on the network other than the remote site, such that the user at the other site can interact with the monitoring information but cannot modify the monitoring information **Structure:** A set of computer instructions implemented on a computer system as described in the specification sections cited below, and all structural equivalents of such set of computer instructions. **Specifications citations:** Col. 10, ll. 22-58; Col. 11, ll. 37-56; Col. 21, ll. 21-24; Col. 23, ll. 14-24; Col. 24, ll. 41-46; Figs. 3A-3B, 5A-5C, 6A-6D.	This claim element is governed by 35 U.S.C. § 112(6). **Function**: The function of this claim element is "accessing the monitoring information stored at the remote site from a site on the network other than the remote site, such that the user at the other site can interact with the monitoring information but cannot modify the monitoring information." **Structure:** The corresponding "structure" described in the specification of the patent is an unspecified set of computer instructions for creating a user interface, or GUI, which allows an individual from the content provider site to access the monitoring information gathered by the generic Java applet, only after this monitoring information has been stored at an independent application manager site. Such access must also be limited in such a way that the individual from the content provider site cannot modify the monitoring information, however, the patent does not disclose how this is to be accomplished. Such access must also allow for the individual from the content provider site to view the monitoring information in "any desired format" such as "graphs, bar charts, pie charts" however the patent does not disclose how this is

No.	Asserted U.S. Patent(s) Nos. and Claims	Element/Term	NetRatings' Designation of Function, Structure and Intrinsic Evidence, Where Applicable	Coremetrics' Designation of Function, Structure and Intrinsic Evidence
				to be accomplished. For these reasons, Coremetrics believes this claim to be indefinite, nonenabled and invalid for failure to disclose the best mode. **Intrinsic evidence**: '637 patent: Col. 21:18-32; Col. 21:64- Col. 25:27.
28.	5,675,510 [9]	means for interpreting the logged machine operation events by reference to the dictionary	**Function:** interpreting the logged machine operation events by reference to the dictionary **Structure:** A processing system programmed to perform the recited function, as described in the specification sections cited below, and all structural equivalents of such processing system. **Specifications citations:** Col. 1, ll. 57-60; Col. 2, ll. 63-67; Col. 5, ll. 23-40; Col. 5, ll. 51-63; Fig. 1.	This claim element is governed by 35 U.S.C. § 112(6). **Function**: The function of this claim element is "interpreting the logged machine operation events by reference to the dictionary." **Structure:** The corresponding "structure" described in the specification of the patent is database management system 4 in Figure 1. However, the patent does not give any examples or provide any further detail about this structure. **Intrinsic evidence**: '510 patent: Col. 5:27-30; Col. 5:34-40.
29.	6,108,637 [59, 60, 64]	display instruction	**This term is not subject to 35 U.S.C. 112(6).** In addition, unless otherwise defined herein in reference to other claim terms, the words in the element have their ordinary meaning as would be understood by those of ordinary skill in the art at the time of the invention.	This claim element is governed by 35 U.S.C. § 112(6). **Function**: The function of this means-plus-function element is "causing content to be displayed by the computer system." **Structure**: same as element 1.

No.	Asserted U.S. Patent(s) Nos. and Claims	Element/Term	NetRatings' Designation of Function, Structure and Intrinsic Evidence, Where Applicable	Coremetrics' Designation of Function, Structure and Intrinsic Evidence
				Intrinsic evidence: '637 patent: Col. 11:57-67; Col. 12:1-8, 15-24; Col. 13:37-40; Col. 13:51-58; Col. 14:31-40; Col. 16:17-27; Col. 17:11-13; Col. 17:29-33; Col. 20:4-12; Col. 25:13-23.
30.	6,108,637 [64]	instructions for causing content to be displayed by the computer system	**Function:** causing content to be displayed by the computer system **Structure:** Computer code encoded on a computer readable medium that, when executed by a computer system, performs the recited function using one or more of the methods disclosed in the specification sections: Col. 1, l. 66 – Col. 2, l. 30; Col. 3, ll. 18-19, 27-33; Col. 5, ll. 26 – 57; Col. 6, ll. 5-14, 57-67; Col. 10, ll. 15-39; Col. 11, l. 18 – Col. 12, l. 67; Col. 18, l. 33 – Col. 19, l. 24; Col. 17, l. 8-13; Col. 19, ll. 37-52; Figs. 1A and 1B. The identified structure also includes all equivalents thereto.	This claim element is governed by 35 U.S.C. § 112(6). **Function**: same as element 29. **Structure**: same as element 1. **Intrinsic evidence**: same as element 8.
31.	6,108,637 [64]	instructions for monitoring display of content by the computer system to produce monitoring	**This element is not subject to 35 U.S.C. 112(6).** In addition, unless otherwise defined herein in reference to other claim terms, the words in the element have their ordinary meaning as would be understood by those of ordinary skill in the art at the time of the invention.	This claim element is governed by 35 U.S.C. § 112(6). **Function**: The function of this claim element is "monitoring display of content by the computer system to produce monitoring information regarding the display of the content, wherein the monitoring instructions are integrated with the display instructions

No.	Asserted U.S. Patent(s) Nos. and Claims	Element/Term	NetRatings' Designation of Function, Structure and Intrinsic Evidence, Where Applicable	Corematrics' Designation of Function, Structure and Intrinsic Evidence
		information regarding the display of the content, wherein the monitoring instructions are integrated with the display instructions such that execution of the display instructions causes execution of the monitoring instructions		such that execution of the display instructions causes execution of the monitoring instructions." **Structure**: same as element 1. **Intrinsic evidence**: same as element 8.
32.	6,108,637 [65]	instructions, adapted for use at the content display site, for monitoring display of content at the content display site to produce monitoring information regarding display of the content	**Function:** monitoring display of content at the content display site to produce monitoring information regarding display of the content **Structure:** Computer code encoded on a computer readable medium that, when executed by a computer system, performs the recited function using one or more of the methods disclosed in the specification sections: Col. 7, ll. 66 - Col. 8, l. 5; Col. 8, ll. 29-37; Col. 10, l. 58 - Col. 11, l. 2; Col. 11, ll. 9-14, 38-67; Col. 12, ll. 1-36; Col. 13, ll. 17-21; Col. 13, ll. 35-40; Col. 14, l. 1- Col. 18, l. 10; Col. 23, ll. 1-9; Col. 25, ll. 38-45; Figs. 3B, 5C, 6D. The identified structure also includes all equivalents	This claim element is governed by 35 U.S.C. § 112(6). **Function**: The function of this claim element is "monitoring display of content at the content display site to produce monitoring information regarding display of the content." **Structure**: same as element 1. **Intrinsic evidence**: same as element 8.

No.	Asserted U.S. Patent(s) Nos. and Claims	Element/Term	NetRatings' Designation of Function, Structure and Intrinsic Evidence, Where Applicable	Corematrics' Designation of Function, Structure and Intrinsic Evidence
			thereto.	
33.	6,108,637 [65]	instructions for receiving monitoring information from the content display site	**Function:** receiving monitoring information from the content display site **Structure:** Computer code encoded on a computer readable medium that, when executed by a computer system, performs the recited function using one or more of the methods disclosed in the specification sections: Col. 2, 15-20; Col. 6, l. 57 - Col. 7, l. 3; Col. 7, l. 66-Col. 8, l. 22; Col. 8, ll. 29-37; Col. 10, ll. 22-67; Col. 11, l. 15-Col. 12, l. 39; Col. 19, l. 66-Col. 21, l. 6; Col. 22, l. 47 – Col. 23, l. 9; Col. 22, ll. 2-11; Col. 23, ll. 27-33; Col. 23. , ll. 56-60; Col. 25, ll. 13-45; Figs. 3A-3B, 5A-5C, 6A-6D. The identified structure also includes all equivalents thereto.	This claim element is governed by 35 U.S.C. § 112(6). **Function**: The function of this claim element is "receiving monitoring information from the content display site." **Structure**: same as element 24. **Intrinsic evidence**: '637 patent, Col. 20: 4-12; Col. 20:23-29; Col. 20:57-Col. 21:6.

936450

EXHIBIT 2

LEXSEE

BOARD OF REGENTS OF THE UNIVERSITY OF TEXAS SYSTEM, An Agency of the State of Texas, and RADWORKS CORPORATION, Plaintiffs, VS. EASTMAN KODAK COMPANY, PRACTICEWORKS, INC., PRACTICEWORKS SYSTEMS, L.L.C., PRACTICEWARES, INC., and JOHN DOES 1 thru 10, Defendants.

Civil Action No: SA-04-CA-912-XR

UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF TEXAS, SAN ANTONIO DIVISION

2006 U.S. Dist. LEXIS 7997

January 26, 2006, Decided

COUNSEL: [*1] For BOARD OF REGENTS OF THE UNIVERSITY OF TEXAS SYSTEM, An Agency of the State of Texas System, RADWORKS CORPORATION, A Texas Corporation, plaintiffs: Ted D. Lee, Gunn & Lee, PC, San Antonio, TX.

For EASTMAN KODAK COMPANY, A New Jersey Corporation, PRACTICEWORKS, INC., A, Delaware Corporation, PRACTICEWORKS SYSTEMS, L.L.C., A Georgia Limited Liability Company, defendants: Bruce C. Morris, Jeffrey R. Parsons, Beirne, Maynard & Parsons, L.L.P., Houston, TX; Stephen M. Hankins, Jeffrey R. Williams, Paul Previde, Claire A. Ebey, William Paul Schuck, Morganstein & Jubelirer, LLP, One Market, San Francisco, CA.

For EASTMAN KODAK COMPANY, PRACTICEWORKS, INC., PRACTICEWORKS SYSTEMS, L.L.C., counterplaintiffs: Bruce C. Morris, Beirne, Jeffrey R. Parsons, Maynard & Parsons, L.L.P., Houston, TX; Stephen M. Hankins, Morganstein & Jubelirer, LLP, San Francisco, CA.

For BOARD OF REGENTS OF THE UNIVERSITY OF TEXAS SYSTEM, RADWORKS CORPORATION, counterdefendants: Ted D. Lee, Gunn & Lee, PC, San Antonio, TX.

JUDGES: XAVIER RODRIGUEZ, UNITED STATES DISTRICT JUDGE.

OPINIONBY: XAVIER RODRIGUEZ

OPINION:

ORDER CONSTRUING CLAIMS

The Court issues this order to construe the claims of the patent in [*2] suit. The Court conducted a *Markman* hearing on November 2, 2005. The Court has considered the parties' briefs and arguments, the applicable law, and the intrinsic record, and concludes that the claim terms should be construed as set forth in this order.

Background/Prosecution History

The University of Texas System owns the patent, U.S. Patent No. 5,179,579, currently at issue in this case. Plaintiff Rad Works is the

exclusive licensee of the patent. RadWorks consists of three individuals, Dr. Brent Dove, Dr. Doss McDavid, and Dr. Donald Wilcox, who are the named inventors of the patent. The patent, entitled "Radiograph Display System with Anatomical Icon for Selecting Digitized Stored Images," was issued January 12, 1993, and relates generally to a software program and device for storing and displaying dental x-rays. Plaintiffs filed this suit accusing Defendants Eastman Kodak Company and Practiceworks, Inc. of infringing the patent.

The Court will set forth the prosecution history and relevant information from the patent specification at this time to provide context.

Specification

The abstract of the patent states that radiographs are captured, digitized, and [*3] displayed along with an icon of a portion of the anatomy from which the radiograph was taken. It further states that the icon takes the form "of a dental film holder, with the positions of the film holder corresponding to anatomical sites readily recognized by dentists, each position of the film holder being arranged in anatomical relation to other positions of the film holder." The background section of the patent specification states:

> It is well known in the field of oral radiology to mount dental radiographs in a film holder. Use of such film holders minimizes the possibility of misinterpretation of radiographs which, when loose and unmounted, can appear to be quite similar to one another. Such film holders can hold as few as one dental radiograph, or as many as 20 or more radiographs. Interpretation of such mounted radiographs is facilitated by mounting each film in normal anatomic relation to each other. In other words, each mounting position in a dental film holder corresponds to a particular anatomical site or anatomical region.

Column 1, lines19-30. It continues: "The mounting of dental radiographs in film holders in normal anatomic relation allows a dentist, [*4] having knowledge of normal radiologic anatomy and knowledge of anatomical landmarks, to quickly and easily interpret a set of mounted dental radiographs." Column 1, lines 35-39. It then lists anatomical landmarks used by dentists and states "film holders present films taken of these anatomical landmark sites in positions that are consistent from holder to holder." Column 1, lines 40-55. The background section further notes that recent advances in dental radiology allow one to store x-ray images in a computer system and display sets of related images with miniature versions of the images, but that these miniature representations of the images are in no particular order. Column 1, line 56 -- Column 2, line 2.

The summary of the invention notes that it solves the drawbacks of the prior art by providing a method and apparatus for displaying stored radiographic images that take advantage of dentists' knowledge of normal radiologic anatomy and knowledge of anatomical landmarks. Column 2, lines 11-15. It further states that "the display of the stored images is facilitated by use of a representation or icon of anatomical sites . . . from which the images were taken. The system user selects [*5] the image to be displayed by selecting the appropriate anatomical site from the representation of anatomical sites . . . ." Column 2, lines 20-25. It also states that the preferred application for the invention is in intra-oral radiology, and in such an application, "sets of stored radiographs are displayed by using a representation of a dental film holder . . . ." Column 2, lines 27-30. The system user "selects the portion of the representation corresponding to the desired image to be

displayed, and the desired image is then retrieved and displayed. Use of a representation of a dental film holder permits a dentist to use his or her knowledge of the anatomical significance of the positions of the mounting positions in the film holder." Column 2, lines 34-37. Thus, it summarizes, "the present invention combines the organizational and interpretational advantages of film holders, with the advantages of digital x-ray imaging techniques." Column 2, lines 38-40.

In its "detailed description of the preferred embodiments," the specification states that, after a particular patient examination has been selected for review, a screen (shown in Figure 3) is displayed to the system user, including [*6] "icon or representation field 53," Column 4, lines 18-21. Icon field 53 "comprises an image of a full mouth examination film holder" and within the icon are film positions, "each of which relate to a specific anatomical site." Column 4, lines 26-29. The specification then lists the specific anatomical sites that correspond to each position in the film holder icon (e.g. "position 58 is a bitewing view of the right maxillary and mandibular molars"). Column 4, lines 29-55. However, the next paragraph states that "it should be emphasized that other anatomical connotations can be applied to the various portions of the icon appearing in icon field 53, without departing from the spirit and scope of the present invention, as long as the anatomical sites represented by the icon in icon field 53 appear in normal anatomical relation to one another." Column 4, lines 56-61. "In addition, although the icon illustrated in FIG. 3 comprises an image of a full mouth examination 20-film holder, different examinations may require different icons. For example, the icon appearing in icon field 53 for a 2-film bitewing examination would be that of a 2-film holder, for example as shown in FIGS. 5A, 5B or [*7] 5C, described in more detail below." Column 4, lines 62-68. To store images, a "system user uses the icon in field 53 to select the anatomical site within icon 53 that is to be associated with the x-ray image captured." Column 5, lines 21-23. The image is then stored along with indicia of the associated location in the icon. Column 5, lines 27-29. This is repeated until images have been captured and associated with each of the anatomical sites represented by the icon in field 53. Column 5, lines 29-32. To retrieve images, the system user selects an image to be displayed by selecting the appropriate anatomical site of the icon in icon field 53. Column 5, lines 45-47.

Referring again to the film holders, the specification states that Figures 5A through 5S present "various icons of film holders that can be used in the present invention for displaying in icon field 53 (FIG. 3) to facilitate user selection of images to be displayed based on desired anatomical site." Column 6, lines 8-12. "FIGS. 5A, 5B and 5C are known as 2-film bitewings, FIGS. 5D and 5F are examples of 3-film bitewings, FIG. 5E is a 4-film bitewing, and FIGS. 5G-S are examples of full mouth surveys having various numbers [*8] of films. For each of the film holders depicted in FIGS. 5A-S, each of the film positions corresponds to a particular anatomical site within the dental arch." Column 6, lines 13-19. Figures 5A through 5S depict nineteen representations of dental film holders, which appear to be copied from a catalog of film holders available at the time of the patent application. n1

n1 Defendants have submitted a page from a Flow X-ray catalog that appears strikingly similar to the depiction of Figures 5A through 5S. Exhibit G to Affidavit of Paul Previde. Plaintiffs' objection to this exhibit is overruled. Defendants have also submitted an excerpt of a product brochure published by Densply Rinn, which depicts over 75 individual examples of film holders/mounts available to dentists. Exhibit H to Affidavit of Paul Previde. Plaintiffs' objection to this exhibit is overruled.

Prosecution History

The original application, entitled "Method and Apparatus for Displaying Stored Radiographs," was filed on June 17, 1991, and included [*9] nine claims. The abstract of the disclosure stated:

> Radiographs are captured, digitized, and displayed along with an icon of a portion of the anatomy from which the radiograph was taken. The anatomical sites represented by the icon are arranged according to their normal anatomical relationship. The icon is used by the system user to select a portion of the anatomy corresponding to the displayed radiograph, and the radiograph is stored along with indicia of the selected anatomical site. Then, when the stored radiograph is desired to be viewed, the icon is again displayed, and the appropriate anatomical site is selected, which causes the corresponding radiograph to be retrieved from storage and displayed. When processing intra-oral radiographs, the icon can take the form of a dental film holder, with the positions of the film holder corresponding to anatomical sites readily recognized by dentists, each position of the film holder being arranged in anatomical relation to other positions of the film holder icon. An image of dentition, for example, a dental arch, can also be used as an icon to facilitate the storage and display of intra-oral radiographs.

The claims included [*10] were:

1. A method of selectively displaying at least one of a plurality of stored radiographs of anatomical sites, comprising: displaying a representation of target anatomical sites arranged in normal anatomical relation to one another; selecting one of said target anatomical sites using said representation; and displaying a stored radiographic image corresponding to said selected target anatomical site.

2. A method of selectively displaying stored radiographs of anatomical sites, comprising: displaying a representation of target radiological sites arranged according to anatomical location of said sites; selecting one of said target radiological sites; and displaying a stored radiographic image corresponding to said selected target radiological site.

3. A method of displaying stored intra-oral radiographs, comprising: displaying a representation of target intra-oral radiological sites arranged according to anatomical location of said sites; selecting one of said target intra-oral radiological sites; and displaying a stored intra-oral radiograph corresponding to said selected target intra-oral radiological site.

4. The method of claim 3, wherein said representation [*11] is an image of an intra-oral radiograph holder.

5. The method of claim 3, wherein said representation is an image of dentition.

6. A method for storing and displaying intra-oral radiographs, comprising: generating and displaying intra-oral radiographs of dentition; generating and displaying a representation of selectable intra-oral radiological sites arranged according to anatomical location of said sites; storing said intra-oral radiograph images responsive to selection of intra-oral radiological sites in said representation along with indicia of respective selected intra-oral radiological sites; and subsequently retrieving and displaying said intra-oral radiographs responsive to selection of respective intra-oral radiological sites in said representation.

7. A program storage device readable by a machine and tangibly embodying a representation of a program of instructions adaptable to be executed by said machine to perform the method of any one of claims 1 thought 6.

8. A device for storing and displaying intra-oral radiographs, comprising: an x-ray source; a sensor for producing x-ray images of dentition placed between said source and said sensor; a memory in [*12] which said x-ray images are stored; a display; means for generating and displaying on said display a representation of selectable intra-oral radiological sites arranged according to anatomical location of said sites; and means, responsive to selection of said selectable sites, for displaying corresponding stored x-ray images.

9. The device of claim 8, further comprising: an image digitizer for digitizing x-ray images produced by said sensor before storage in said memory.

The United States Patent and Trademark Office ("PTO") rejected all nine claims. The PTO stated that a new title was required that would be clearly indicative of the invention to which the claims were directed and suggested "radiograph display system with anatomical icon for selecting digitized stored images." The notice further stated that claims one through nine were rejected as obvious under 35 U.S.C. § 103. Specifically, it stated that the claims were "unpatentable over Aisaka et al.," which "teaches an image display system having most [of] the means and steps to that of the instant invention." It continued, "for instance, Aisaka teaches the following: (a) an image display system [*13] for medical X-ray imaging; (b) memories in which X-ray images are stored; (c) a display; (d) means for generating and displaying on said display a representation of selectable X-ray image; (e) means, responsive to selection of said selectable image for displaying corresponding X-ray images." (citations omitted.) The PTO noted, however, that "Aisaka does not teach that his system [is] to be used for storing and displaying intra-oral radiographs. [A] medical X-ray storing and displaying system such as Aisaka's is not only limited to computer tomography. In [the] case of intra-oral radiographs of dentition, it would have been obvious to one of ordinary skill in the art to utilize an imaging and displaying system similar to Aisaka's, because a number of images of specific portions of the patient's dentition which giving [*sic*] specific ID codes are selected from among a multitude of X-ray images."

In response, Plaintiff canceled claims *1*, *2*, *4*, and 5 and amended claims 3, 6, and 8 by adding "an intra-oral radiograph holder includ-

ing" after "representation of." The applicant also adopted the PTO's suggested title. n2 With regard to the obviousness objection, the applicant [*14] responded:

> n2 The title now listed on the patent is handwritten and states "Radiograph Display System with Anatomical Icon for Selecting Digitized Stored Images."

> Each independent claim remaining in this application (claims 3, 6, and 8) has been amended to incorporate the limitations of original claim 4. Thus, all claims remaining in this application require the display of a representation of "an intra-oral radiograph holder." Referring to the Specification, exemplary intra-oral radiograph holders are shown in Fig. 3 (item 53), and in Figs. 5A-5S. As explained in the Specification, dentists are familiar with such radiograph holders, and are trained to associate certain positions in the holder with specific portions of dentition.
>
> While the Aisaka et al. reference contemplates the display of a representation of anatomy (for example, a stomach in Fig. 2A or a lung in Fig. 7C), there is no suggestion in Aisaka et al., or in any of the art of record, to display a representation of an intra-oral radiograph holder, [*15] and the use of that representation to store and retrieve dental radiographs. Such a suggestion is only found in Applicants' disclosure.

The patent as amended was allowed. The "Notice of Allowability" states that Claims 3 and 6-9 are allowable over the prior art of record and gave a statement of reasons as follows:

> Recent advances in computerized dental imaging systems allow intra-oral X-ray images to be created, stored, recalled and displayed. However, the displayed dental images are not particular in order which gives rise to a problem of intra-oral radiographs of different anatomical sites appearing to be quite similar.
>
> In one embodiment, applicant claims a method of displaying stored radiographs and representations of target sites of an intra-oral radiograph holder. Applicant claims the stored radiographs can be selected and displayed. The displayed radiographs corresponding to said selected target sites are arranged according to the anatomical location of said sites.
>
> In another embodiment, applicant claims an apparatus to accomplish the above claimed method of storing and displaying intra-oral radiographs arranged according to the anatomical location taken by an intra-oral [*16] radiograph holder.

Thus, the original patent application was for a method of displaying stored intra-oral radiographs comprising displaying a representation of target intra-oral radiological sites arranged according to anatomical location of said sites. This representation could be either "an image of an intra-oral radiograph holder" or "an image of dentition." *See* original application claims 4 & 5. The amended and approved application eliminated the "image of dentition" method of original claim 5 and incorporated original claim 4's limitation of "an image of an intra-oral radiograph holder" directly into the other claims.

General Claim Construction Principles

"It is a bedrock principle' of patent law that the claims of a patent define the invention to which the patentee is entitled the right to exclude.'" *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005). The claims are "of primary importance, in the effort to ascertain precisely what it is that is patented." *Merrill v. Yeomans*, 94 U.S. 568, 570, 24 L. Ed. 235, 1877 Dec. Comm'r Pat. 279 (1876). The words of a claim "are generally given their ordinary and customary meaning." *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996). [*17] The "ordinary and customary meaning" is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, *i.e.*, as of the effective filing date of the patent application. *Phillips*, 415 F.3d at 1313. This inquiry provides an objective baseline from which to begin claim construction. *Id.* The person of ordinary skill in the art is deemed to read a claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification. *Id.* Further, such person is deemed to read the words used in the patent documents with an understanding of their meaning in the field, and to have knowledge of any special meaning and usage in the field. *Multiform Desiccants, Inc. v. Medzam, Ltd.*, 133 F.3d 1473, 1477 (Fed. Cir. 1998). Thus, the Court starts the decisionmaking process by reviewing the same resources as would that person, by reviewing the patent specification and the prosecution history. *Id.*

In many cases, "determining the ordinary and customary meaning of the claim requires examination of terms that have a particular [*18] meaning in a field of art. Because the meaning of a claim term as understood by persons of skill in the art is often not immediately apparent, and because patentees frequently use terms idiosyncratically, the Court looks to those sources available to the public that show what a person of skill in the art would have understood disputed claim language to mean.'" *Phillips*, 415 F.3d at 1314 (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1116 (Fed. Cir. 2004)). Those sources include "the words of the claims themselves, the remainder of the specification, the prosecution history, and extrinsic evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art." *Phillips*, 415 F.3d at 1314 (quoting *Innova*, 381 F.3d at 1116).

The claims themselves provide substantial guidance as to the meaning of particular claim terms. *Phillips*, 415 F.3d at 1314. The context in which a term is used in the asserted claim can be highly instructive. *Id.* And, other claims of the patent in question, both asserted and unasserted, can be valuable [*19] sources of information regarding the meaning of a claim term because claim terms are normally used consistently throughout the patent. *Id.* Or, the presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation is not present in the independent claim. *Id.*

Claims, however, are not read in isolation, and "must be read in view of the specification, of which they are a part." *Phillips*, 415 F.3d at 1315 (quoting *Markman v. Westview Instruments*, 52 F.3d 967, 978 (Fed. Cir. 1995)). The specification is "always highly relevant to the claim construction analysis," "is the single best guide to the meaning of a disputed term," and is usually dispositive. *Phillips*, 415 F.3d at 1315 (quoting *Vitronics*, 90 F.3d at 1582); *see also* 35 U.S.C. § 112, para. 1 (requiring that the specification describe the claimed invention in "full, clear, concise, and exact terms"). Thus, "the construction that stays true to the claim language and most naturally aligns with the patent's description of the invention will be, in the end, the correct construction." *Renishaw PLC v. Marposs Societa per Azioni*, 158 F.3d 1243, 1250 (Fed. Cir. 1998). [*20] The specification may reveal a special definition given to a claim term by the patentee that differs from

the meaning it would otherwise possess. In such cases, the inventor's lexicography governs. *Phillips*, 415 F.3d at 1316. In other cases, the specification may reveal an intentional disclaimer or disavowal of claim scope by the inventor, and in that instance the inventor has dictated the correct claim scope and the specification is regarded as dispositive. *Id.*

In addition to consulting the specification, the Court "should also consider the patent's prosecution history, if it is in evidence." *Phillips*, 415 F.3d at 1317 (quoting *Markman*, 52 F.3d at 980). The prosecution history, which is part of the intrinsic evidence, consists of the complete record of the proceedings before the PTO and includes the prior art cited during the examination of the patent. *Phillips*, 415 F.3d at 1317. Like the specification, the prosecution history provides evidence of how the PTO and the inventor understood the patent. *Id.* However, because the prosecution history represents an ongoing negotiation between the PTO and the applicant, [*21] rather than the final product of that negotiation, it is often lacks the clarity of the specification, and thus is less useful for claim construction purposes. *Id.* Nevertheless, the prosecution history can often inform the meaning of the claim language by demonstrating how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim scope narrower than it would otherwise be. *Id.* Thus, consulting the prosecution history may result in exclusion of an interpretation that was disclaimed during prosecution. *Chimie v. PPG Industr., Inc.*, 402 F.3d 1371, 1384 (Fed. Cir. 2005).

When construing claim language, it is appropriate to read the term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent. *Phillips*, 415 F.3d at 1313. Thus, the inventor's words that are used to describe the invention -- the inventor's lexicography -- must be understood and interpreted by the court as they would be understood and interpreted by a person in that field of technology. *Id.* (quoting *Multiform Dessicants, Inc.* v. *Medzam, Ltd.*, 133 F.3d 1473, 1477 (Fed. Cir. 1998). [*22] Further, "it is entirely proper to use the specification to interpret what the patentee meant by a word or phrase in the claim," so long as one does not read a limitation into the claim from the specification wholly apart from any need to interpret what the patentee meant by particular words or phrases in the claim. *E.I. DuPont de Nemours & Co. v. Phillips Petroleum Co.*, 849 F.2d 1430, 1433 (Fed. Cir. 1988). "Properly viewed, the ordinary meaning' of a claim term is its meaning to the ordinary artisan after reading the entire patent." *Phillips*, 415 F.3d at 1321. The Court recognizes that it must not read limitations from the specification into the claim and that "the distinction between using the specification to interpret the meaning of a claim and importing limitations from the specification into the claim can be a difficult one to apply in practice." *Id.* at 1323. However, the Court is mindful that, "[t]o avoid importing limitations from the specification into the claims, it is important to keep in mind that the purposes of the specification are to teach and enable those of skill in the art to make and use the invention and to [*23] provide a best mode for doing so." *Id.* Thus, "much of the time, upon reading the specification in that context, it will become clear whether the patentee is setting out specific examples of the invention to accomplish those goals, or whether the patentee instead intends for the claims and the embodiments in the specification to be strictly coextensive." *Id.* "The manner in which the patentee uses a term within the specification and claims usually will make the distinction apparent." *Id.*

Though the claim, the specification, and the prosecution history, which together form the intrinsic evidence, are of primary importance in claim construction, the Court may also rely on extrinsic evidence, which comprises "all evidence external to the patent and prosecution history, including expert and inventor testi-

mony, dictionaries, and learned treatises." *Phillips*, 415 F.3d at 1317 (quoting *Markman*, 52 F.3d at 980). Though useful, the extrinsic evidence is less reliable and less significant than the intrinsic record in determining the legally operative meaning of claim language and is unlikely to result in a reliable interpretation of the patent claim [*24] scope unless considered in the context of the intrinsic evidence. *Phillips*, 415 F.3d at 1317-19. Thus, the Court should avoid "undue reliance" on extrinsic evidence because it poses the risk of changing the meaning of claims "in derogation of the indisputable public records consisting of the claims, the specification and the prosecution history,' thereby undermining the public notice function of patents." *Phillips*, 415 F.3d at 1319 (quoting *Southwall Techs v. Cardinal IG Co.*, 54 F.3d 1570, 1578 (Fed. Cir. 1995)).

The sequence of steps used by a court in consulting various sources is not important; what matters is for the court to attach the appropriate weight to each source in light of the statutes and policies that inform patent law. *Phillips*, 415 F.3d at 1324.

Construction of Disputed Claim Terms

A. "a representation of an intra-oral radiograph holder"

This terms appears in Claims 1, 2, and 4 of the patent as follows:

> 1. A method of displaying stored intra-oral radiographs, comprising:
>
> > displaying *a representation of an intra-oral radiograph holder* including target intra-oral [*25] radiological sites arranged according to anatomical location of said sites;.
>
> . . .
>
> 2. A method for storing and displaying intra-oral radiographs, comprising:
>
> > generating and displaying intra-oral radiographs of dentition; generating and displaying *a representation of an intra-oral radiograph holder* including selectable intra-oral radiological sites arranged according to anatomical location of said sites;. . . .
>
> 4. A device for storing and displaying intra-oral radiographs, comprising:
>
> > . . .
> >
> > a display; means for generating and displaying on said display *a representation of an intra-oral radiograph holder* including selectable intra-oral radiological site arranged according to anatomical location of said sites; . . . .

The parties agree that a radiograph is an image produced by x-rays and that "intra-oral radiographs" are images produced by x-rays captured by a film or sensor placed within the mouth. Plaintiffs contend that "a representation of an intra-oral radiograph holder" should be

construed as "a representation of a device having a plurality of windows or image placeholders, arranged in anatomical order, for displaying intra-oral [*26] dental x-ray images." Plaintiffs assert that the invention appropriates the organizational and interpretational advantages of film holders, but does not incorporate their aesthetic or non-functional characteristics, and thus a representation of an intra-oral radiograph holder is simply a representation of a device having a plurality of windows or image placeholders, arranged in anatomical order, for displaying intra-oral dental x-ray images.

Defendants argue that "a representation of an intra-oral radiograph holder" should be construed as "a representation of what those skilled in the art would recognize as a collection of one or more positions organized in the format of a conventional intra-oral radiograph holder." Defendants rely primarily on the prosecution history to support their position, claiming that Plaintiffs' proposed construction is inconsistent with the prosecution history by side-stepping the addition of the "representation of an intra-oral radiograph holder" language and returning to the anatomical arrangement rejected by the PTO. Defendants argue that the prosecution history contains a substantive narrowing amendment and the Court must reject Plaintiffs' efforts to [*27] reclaim surrendered rights. Defendants argue that Plaintiffs seek to isolate one attribute of an intra-oral radiograph holder-anatomical arrangement -- as its entire definition. Defendants assert that the original patent application claimed all anatomical arrangements of radiographs and was deemed unpatentable due to prior art. In response, Plaintiffs amended the claims to include "a representation of an intra-oral radiograph holder," and this critical limitation was an explicit disavowal of claim scope and prohibits Plaintiffs from asserting any construction that excludes an intra-oral radiograph holder. Defendants further argue that Plaintiffs' proposed construction would expand the scope of the claims to include arrangements that are not film holders, such as the dental arch representations displayed in Figures 6 and 7 of the patent, but this cannot be correct because the specification clearly distinguishes dental arches from intra-oral radiograph holders. *See* 579 patent, col. 2, lines 27-31 ("The preferred application for the present invention is in intra-oral radiology. In such an application, sets of stored radiographs are displayed by using a representation of a dental [*28] film holder, *or* of dentition such as a dental arch.").

The Court finds that both sides have strong arguments regarding the proper construction of this term. Defendants argue that what was patented was a representation of a film holder familiar to dentists. There is some language in the specification and prosecution history to support this view. On the other hand, Plaintiffs point to the specification, noting that it emphasizes the organizational and interpretational characteristics of a film holder, and contend that the language of column 4, lines 56-61, which "emphasizes that other anatomical connotations can be applied to the various portions of the [intra-oral radiograph holder] icon, . . . so long as the anatomical sites represented by the icon . . . appear in normal anatomical relation to one another" means that the patent is broad enough to encompass all kinds of representations, not just conventional film holders, provided that the anatomical locations that are designated by the sites in the icon are arranged in anatomical order. Plaintiffs also contend that their construction is consistent with the prosecution history, and that when amending the claims, the applicant's [*29] incorporation of claim 4 into claim 3 expressed the patent attorney's understanding that claim 3, as amended, was the same as original claim 4, which noted that an image of an intra-oral radiograph holder was one method of displaying "a representation of target intra-oral radiological sites arranged according to anatomical location of said sites."

The claim refers to "a representation of an intra-oral radiograph holder" three times. Each

time, the phrase is followed by "including selectable intra-oral radiograph sites arranged according to anatomical location of said sites." Thus, the claim itself makes clear that the holder representation includes selectable "intra-oral radiological sites" arranged according to their anatomical location. In addition, because the intra-oral radiological sites are arranged according to their anatomical location, the sites must have an "anatomical location." These limitations contained in the claim language itself are consistent with the description in the specification, which states that (1) film holder positions ("selectable intra-oral radiological sites") correspond to particular anatomical sites within the dental arch, Col. 6, lines 18-20, (2) each [*30] mounting position in a dental film holder corresponds to a particular anatomical site or anatomical region, Col. 1, lines 27-30, (3) mounting positions in the film holder have anatomical significance, Col. 2, lines 36-37, and (4) the anatomical sites ("selectable intra-oral radiological sites") in the holder representation appear in normal anatomical relation to one another, Col.4, lines 60-61. Plaintiffs' proposed construction of "intra-oral radiograph holder" expressly incorporates the anatomical arrangement limitation contained in the claim language, but does not expressly incorporate the feature that each position in the film holder representation correspond to an anatomical location. This may be implicit, however, in the fact that windows can only be arranged in anatomical order if they have anatomical significance. Further, this limitation is incorporated into their definition of "intra-oral radiological sites" as "icons or sites included in a representation of an intra-oral radiograph holder designating respective anatomical regions of the dental arch," which is discussed in the next section.

The specification makes clear that the term used in the claim, "an intra-oral radiograph [*31] holder," is a film holder, or film mount, and that it is "well known" in the field of oral radiology to mount dental radiographs in a film holder. The specification does not expressly equate a representation of an intra-oral radiograph holder to a "conventional" film holder. Rather, the background of the invention describes film holders by stating that (1) "such film holders can hold as few as one dental radiograph, n3 or as many as 20 or more radiographs," (2) "each mounting position in a dental film holder corresponds to a particular anatomical site or anatomical region," (3) and "film holders present films taken of these anatomical landmark sites in positions that are consistent from holder to holder." The "summary of the invention" states that "use of a representation of a dental film holder permits a dentist to use his or her knowledge of the anatomical significance of the positions of the mounting positions in the film holder." Thus, these portions of the specification indicate that the relation between positions in a film holder and anatomical locations is consistent and that dentists would know them. However, though the specification describes the use of a representation of [*32] "a full mouth examination 20-film holder" in the detailed description of the preferred embodiment and specifies which film positions contained in the representation relate to which anatomical site, it "emphasizes that other anatomical connotations can be applied to the various portions of the icon appearing in icon field 53 [the representation of the film holder], without departing from the spirit and scope of the present invention, as long as the anatomical sites represented by the icon in icon field 53 appear in normal anatomical relation to one another." Thus, this language supports Plaintiffs' position that the only mandatory characteristics of a representation of an intra-oral radiograph holder, or film holder icon, are that the positions within the icon/representation represent anatomical sites and appear in normal anatomical relation to one another.

n3 The Court notes that, while the description of film holders states that they can hold as few as one dental radiograph, the invention does not include representations of intra-oral radiograph holders with only one position. The claim language requires that the film holder representation include intra-oral radiological sites, a plural term requiring there to be more than one position. Further, positions in the holder representation may only be arranged according to anatomical location if there is more than one. This limitation is supported by the specification as well, which states that "sets of stored radiographs are displayed by using a representation of a dental film holder." Column 2, lines 28-30. Thus, while the specification describes attributes of film holders, not all of those attributes are necessarily true of a representation of an intra-oral radiograph holder.

[*33]

Turning to the prosecution history, the original patent application demonstrates that the patentee believed that displaying "an image of an intra-oral radiograph holder" was one method for displaying a representation of target-intra-oral radiological sites according to anatomical location of said sites, while displaying an image of dentition was a second method. In its amendment, the patentee removed the image of dentition and retained the image of an intra-oral radiograph holder, noting that "all claims remaining in this application require the display of an intra-oral radiograph holder.'" The patentee further noted in its letter of explanation accompanying the amended claims that, "as explained in the Specification, dentists are familiar with such radiograph holders, and are trained to associate certain positions in the holder with specific portions of dentition." This language is consistent with the specification's statement that "use of a representation of a dental film holder permits a dentist to use his or her knowledge of the anatomical significance of the positions of the mounting positions in the film holder." The Court must thus consider whether this language limits the [*34] term intra-oral radiograph holders to "conventional" film holders (those with which dentists are familiar and for which dentists are trained to associate certain positions in the holder with specific portions of dentition), as Defendants urge.

As noted, the language in the specification seems to be somewhat contradictory, noting that film holders present films taken of anatomical landmark sites in positions that are consistent from holder to holder and that dentists have knowledge of the anatomical significance of the positions of the film holder, while simultaneously stating that "other anatomical connotations" can be applied to the icon positions, as long as the anatomical sites represented by the positions appear in normal anatomical relation to one another. However, the specification's "emphasis" that other anatomical connotations may be applied to the positions in the representation of the film holder can only be construed as the patentee's disavowal of a limitation that would require the positions of the film holder representation to correspond to particular anatomical locations in the mouth. In other words, though the positions must correspond to anatomical locations in the [*35] mouth, they do not necessarily have to correspond to the anatomical locations conventionally assigned to them. Thus, although dentists are trained to associate film holder positions with specific anatomical locations and the invention purports to take advantage of this training and knowledge, it is not strictly limited to use of representations of conventional film holders. To be sure, the patentee's language in the amended patent application correspondence with the PTO is consistent with the notion that a representation of an intra-oral radiograph holder is a representation of a film holder with which dentists are familiar and for which they have been trained to associate the mounting

positions with specific anatomical locations. However, the Federal Circuit has instructed that the prosecution history, though useful, is less reliable than the specification, which appears to disavow such a strict limitation. n4 Further, when distinguishing Aisaka, the patentee's use of more circumscribed language in describing the use of film holders did not expressly disavow the language of the specification that other anatomical connotations could apply to the positions in the holder representation. [*36] Rather, the only thing the patentee clearly disavowed was a representation of anatomy: "While the Aisaka et al. reference contemplates the display of a representation of anatomy (for example, a stomach in Fig. 2A or a lung in Fig. 7C), there is no suggestion in Aisaka et al., or in any of the art of record, to display a representation of an intra-oral radiograph holder, and the use of that representation to store and retrieve dental radiographs." Thus, the prosecution history does not limit the invention to representations of conventional film holders.

> n4 The Court notes, however, that in this case the specification seems less reliable because it is a description of the originally submitted invention, which included a representation of dentition, and thus some of the language in the specification either does not apply or was written broadly enough to cover both the image of an intra-oral radiograph holder and image of dentition originally included as methods for displaying target intra-oral radiological sites arranged according to anatomical location of said sites.

[*37]

The extrinsic evidence does not contradict this construction. Defendants read testimony from David Bahler into the record during the *Markman* hearing:

Q: What do you recall generally about the technology that is at issue at the patent in suit?

A: Generally, it is a method and perhaps an apparatus for displaying intraoral radiographs on a computer display -- actually, dental x-rays on a computer display in a way that is recognizable to dentists, generally.

Defendants argue that this testimony establishes that the film holders must be recognizable to dentists as conventional film holders. However, the testimony states only that the invention involves displaying x-rays in a way that is recognizable to dentists. Use of a representation of a film holder would be recognizable to dentists, regardless of whether they recognized the specific representation as a "conventional" film holder.

The Court finds that Plaintiffs' proposed construction is more consistent with the claim and specification, though it unnecessarily incorporates limitations that are already contained in the claim language. Were the Court to use Plaintiffs' proposed construction, claim 2, for example, would read "generating [*38] and displaying [a representation of a device having a plurality of windows or image placeholders, arranged in anatomical order, for displaying intra-oral dental x-ray images] including selectable intra-oral radiological sites arranged according to anatomical location of said sites." Thus, Plaintiffs' construction would create redundancy. The specification (and prosecution history) makes clear that "a representation of an intra-oral radiograph holder" is simply "a representation or image of a dental film holder." And, a dental film holder is a device for mounting dental x-rays.

The Court has attempted to follow the applicable claim construction guidelines from the Federal Circuit, and finds that, based on the claim language, the specification, and the prosecution history, an ordinary artisan (a dentist) would construe the term "representation of an intra-oral radiograph holder" in claims 1, 2,

and 4 as "a representation or image of a dental film holder (a device for mounting two or more dental x-rays)."

B. "intra-oral radiological site(s)"

This term is used in Claims 1, 2, and 4 as follows:

1. A method of displaying stored intra-oral radiographs, comprising:

> displaying [*39] a representation of an intra-oral radiograph holder including target *intra-oral radiological sites* arranged according to anatomical location of said sites;
>
> selecting one of said target *intra-oral radiological sites*; and
>
> displaying a stored intra-oral radiograph corresponding to said selected target *intra-oral radiological site.*

2. A method for storing and displaying intra-oral radiographs, comprising:

> generating and displaying intra-oral radiographs of dentition;
>
> generating and displaying a representation of an intra-oral radiograph holder including selectable *intra-oral radiological sites* arranged according to anatomical location of *said sites*;
>
> storing said intra-oral radiograph images responsive to selection of *intra-oral radiological sites* in said representation along with indicia of respective selected *intra-oral radiological sites*; and
>
> subsequently retrieving and displaying said intra-oral radiographs responsive to selection of respective *intra-oral radiological sites* in said representation.

4. A device for storing and displaying intra-oral radiographs, comprising:

> . . .
>
> a display;
>
> means [*40] for generating and displaying on said display a representation of an intral-oral radiograph holder including selectable *intra-oral radiological sites* arranged according to anatomical location of *said sites*;
>
> means, responsive to selection of *said selectable sites*, for displaying corresponding stored x-ray images.

Plaintiffs argue that "intra-oral radiological sites" are "icons or sites included in a representation of an intra-oral radiograph holder designating respective anatomical regions of the dental arch." Defendants contend that it means "intra-oral anatomical sites or regions which may correspond to positions within a radiograph holder."

Defendants argue that the patent requires intra-oral anatomical sites to be arranged "according to anatomical location of said sites," but locations on a display monitor do not have an anatomical relationship to one another, only locations within a patient's anatomy do. Defendants concede that Plaintiffs' construction "appears to be the plain meaning of this claim phrase," but argue that "the specification clearly sets forth a meaning different from the

apparent meaning of the claim language." Defendants' Claim Construction [*41] Brief at 18. Defendants assert that the specification defines "sites" as "anatomical sites or regions," not positions on the film holder representation. In support of its position, Defendants note that the specification states that "each mounting position in a dental film holder corresponds to a particular anatomical site or anatomical region" and that the abstract "confirms this definition" by stating that "the positions of the film holder correspond[] to anatomical sites readily recognized by dentists." *Id.* at 19. Further, Defendants argue, the specification discusses how the user can use the film holder representation to select an anatomical site associated with a recently taken x-ray ("The system user uses [the film holder representation] to select the anatomical site . . . to be associated with [an x-ray taken by the dentist] . . . . ") and explains how the user can select positions within the film holder representation to display an x-ray of an anatomical location, such as a tooth or teeth ("The system user selects an image to be displayed by selecting the appropriate anatomical site . . . "). Thus, Defendants assert, the patentee has acted "as his own lexicographer" [*42] and has provided a definition of "intra-oral radiological sites" that means "intra-oral anatomical sites or regions." Last, Defendants argue that Plaintiffs' proposed construction is so broad that, if accepted in conjunction with Plaintiffs' proposed broad construction of radiograph holder, it would include a depiction of a dental arch, a limitation surrendered by Plaintiffs during the patent's prosecution.

Looking to the claim language, in Claims 1, 2, and 4, the "intra-oral radiological sites" must be "arranged according to anatomical location of said sites." Since sites within the mouth have anatomical locations but icons do not, this language lends some support to Defendant's construction. However, the patent's background section explains that "interpretation of . . . mounted radiographs is facilitated by mounting each film in normal anatomic relation to each other." This language indicates that the patentee regarded the films as being arrangeable by anatomical relation, and this functionality in the representation of the film holder was a key feature of the patent. Moreover, the balance of the claim language supports Plaintiffs' construction. The clearest support for Plaintiffs' [*43] construction lies in Claim 2. Claim 2 encompasses a method for storing and displaying intra-oral radiographs, comprising "generating and displaying a *representation* of an intra-oral radiograph holder including selectable intra-oral radiological sites arranged according to anatomical location of said sites," "storing said intra-oral radiograph images responsive to selection of intra-oral radiological sites *in said representation* along with indicia of respective selected intra-oral radiological sitesn5" and "subsequently retrieving and displaying said intra-oral radiographs responsive to selection of respective intra-oral radiological sites *in said representation."* Thus, Claim 2 teaches that the intra-oral radiological sites are in the representation of an intra-oral radiograph holder, not within the mouth as Defendants urge. Further, Claims 2 and 4 make clear that the "intra-oral radiological sites are "selectable" and that images are stored, retrieved, and displayed "responsive to" selection of "intra-oral radiological sites." Because icons on the computer screen are selectable (by keyboard, mouse click, etc.), and images are stored, retrieved, and displayed in response [*44] to selection of the icon, whereas the same cannot be said regarding anatomical sites or regions, this claim language further supports Plaintiffs' construction.

n5 The Court recognizes that there is some ambiguity and inconsistency within the specification regarding use of this term. For example, in column 5, line 27, the specification states that the captured image is stored along with indicia of the associated location in the icon, suggest-

ing that "selected intra-oral radiological sites" is a location in the icon. However, in the abstract, it states that the radiograph is stored "along with indicia of the selected anatomical site," suggesting that an intra-oral radiological site is an anatomical site. However, the balance of the claim and specification support the construction that an intra-oral radiological site is a site within the film holder representation, not a site within the mouth. This construction is consistent with the claim language, while Defendants' construction is not, and thus Plaintiffs' construction is the preferred construction. *Vitronics*, 90 F.3d at 1582. Moreover, part of the confusion may be due to the fact that the specification describes the original patent application, which included an image of dentition/anatomy as the representation, whereas the final patent does not include these, and thus some of the language was broad enough to cover the patentee's original intention that intra-oral radiological sites would include positions within a film holder that correspond to anatomical sites and positions within a representation of anatomy/dentition.

[*45]

The Court agrees with Plaintiffs that other language in the specification also generally supports Plaintiffs' construction. The specification states "The display of the stored images is facilitated by use of *a representation or icon of anatomical sites,* or of the portion of the anatomy, from which the images were taken. The system user selects the image to be displayed by selecting the appropriate *anatomical site from the representation of anatomical sites or portion of anatomy* . . . ." Column 2, lines 20-26 (emphasis added). Thus, when the specification refers to anatomical site, it means the anatomical site within the representation or icon, not within the mouth.

Thus, when the claim uses the term "intra-oral radiological sites" it refers to the icons in the representation of an intra-oral radiograph holder, and those icons correspond to anatomical sites within the mouth and are arranged according to their anatomical relation to each other. Accordingly, the Court construes "intra-oral radiological sites" as "icons or sites, included in the representation of an intra-oral radiograph holder, that designate respective anatomical regions of the dental arch."

C. "Responsive [*46] **to"**

This term appears in Claims 2 and 4 as follows:

> 2. A method for storing and displaying intra-oral radiographs, comprising:
>
> generating and displaying intra-oral radiographs of dentition; generating and displaying a representation of an intra-oral radiograph holder including selectable intra-oral radiological sites arranged according to anatomical location of said sites;
>
> storing said intra-oral radiograph images *responsive to* selection of intra-oral radiological sites in said representation along with indicia of respective selected intra-oral radiological sites; and
>
> subsequently retrieving and displaying said intra-oral radiographs *responsive to* selection of respective intra-oral radiological sites in said representation.

4. A device for storing and displaying intra-oral radiographs, comprising:

. . .

a display;

means for generating and displaying on said display a representation of an intral-oral radiograph holder including selectable intra-oral radiological sites arranged according to anatomical location of said sites;

means, *responsive to* selection of said selectable sites, for displaying corresponding stored x-ray [*47] images.

Plaintiffs argue that "responsive to" should be construed as "in response to," while Defendants contend that the term needs no construction. Defendants' briefing repeatedly asserts primarily that there is no reason to replace the simple phrase "responsive to" with Plaintiffs' proposed language. In their response to Plaintiffs' Opening Claim Construction Brief and in their presentation to the Court at the *Markman* hearing, Defendants also asserted that, as used in the 579 patent, "responsive to" is a phrase that modifies the term radiographs (radiographic images), whereas Plaintiffs propose that "responsive to" modifies the claimed acts of storing and displaying. Defendants argue that "the [radiographic] images are responsive to selection' of sites within the film holder representation." Defendants' Response to Plaintiffs' Opening Brief at 19.

Though the Court would generally conclude that this term is plain and requires no construction, the fact that Defendants offer a construction at odds with Plaintiffs' construction leads the Court to conclude that construction of the term is appropriate. The Court finds that a plain reading of the claim language indicates that [*48] "responsive to" means "in response to." The Court finds Defendants' construction to be nonsensical, as it does not understand how images can be responsive to selection as Defendants urge. Plaintiffs' construction is further supported by the use of the term in claim 4: "means, responsive to selection of said selectable sites, for displaying corresponding stored x-ray images." There is no term "images" in claim 4 as there is in claim 2, and in claim 4, "responsive to" clearly means "in response to." Because claim terms are normally used consistently throughout the patent, the usage of a term in one claim can illuminate the meaning of the same term in other claims. *Phillips*, 415 F.3d at 1314. Because "responsive to" in claim 4 means "in response to," it supports Plaintiffs' construction of the term in claim 2 as well. Plaintiffs' construction is further supported by the description of the invention in the specification, which makes clear that images are stored after selection, or in other words, in response to selection of the icon in the film holder representation, and that they are similarly retrieved and displayed after selection, or in other words, in response to [*49] selection, of positions in the representation.

Accordingly, the Court adopts Plaintiffs' construction of "responsive to" as "in response to."

D. "means for generating and displaying on said display a representation of an intra-oral radiograph holder including selectable intra-oral radiological sites arranged according to anatomical location of said sites" and "means, responsive to selection of said selectable sites, for displaying corresponding stored x-ray images"

This language appears in Claim 4 as follows:

4. A device for storing and displaying intra-oral radiographs, comprising:

an x-ray source;

> a sensor for producing x-ray images of dentition placed between said source and said sensor;
>
> a memory in which said x-ray images are stored;
>
> a display;
>
> *means for generating and displaying on said display a representation of an intral-oral radiograph holder including selectable intra-oral radiological sites arranged according to anatomical location of said sites*;
>
> *means, responsive to selection of said selectable sites, for displaying corresponding stored x-ray images.*

The parties agree that these claim limitations are governed [*50] by 35 U.S.C. § 112, paragraph six: "An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof."

The construction of a means-plus-function limitation includes two steps. First, the Court determines the claimed function. *Omega Eng'g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1321 (Fed. Cir. 2003). The function of a means-plus-function limitation must come from the claim language itself. Second, the Court identifies the corresponding structure in the written description that performs that function. *Id.* The written description may disclose distinct and alternative structures for performing the claimed function. *Creo Prods. v. Presstek*, 305 F.3d 1337, 1345 (Fed. Cir. 2002). In order to qualify as corresponding structure, "the structure must not only perform the claimed function, but the specification must clearly associate the structure with performance of the function. [*51] " *JVW Enters., Inc. v. Interact Accessories, Inc.*, 424 F.3d 1324, 1332 (Fed. Cir. 2005).

A

> **"means for generating and displaying on said display a representation of an intra-oral radiograph holder including selectable intra-oral radiological sites arranged according to anatomical location of said sites"**

The parties agree that the function of the first means-plus-function element is "generating and displaying on said display a representation of an intra-oral radiograph holder including selectable intra-oral radiological sites arranged according to anatomical location of said sites." They disagree, however, on the corresponding structure. Plaintiffs assert that the corresponding structure is "a software program running on a computer connected to the display." Plaintiffs cite column 2, line 64 through column 3, line 1, which identifies a general embodiment of the corresponding structure as a "computer-based system" with "software embodying the present invention" and column 3, lines 1-3, which sate that "the software of the present invention is presented in flow chart form in FIGS 4A and 4B," which include function blocks 78 and 87 that recite the [*52] function "display anatomical site icon." Further, the specification states that "the computer system can be any computer and hardware display." Thus, Plaintiffs argue, the means-plus-function limitation is not restricted to the specified types of program storage devices (system memory, CPU, and monitor), but is simply "a software program running on a computer con-

nected to a display" that carries out the recited function.

Defendants argue that the structures necessary to carry out the function are set forth in portions of the written description and in Figures 1, 4A, and 4B, including a "central processing unit (CPU)" that loads software embodying the present invention into memory from program storage medium (any machine readable storage medium such as a floppy or hard magnetic or optical disk, or a programmable read-only memory) and a display. Thus, Defendants argue, "the specified types of program storage devices, system memory, CPU [a central processing unit that loads software], and monitor are required to carry out the function of generating and displaying' the recited representation . . . and Claims 4 and 5 should be limited to these structures."

The specification states: [*53]

> Referring to FIG. 1, a computer-based system is presented embodying the present invention.
>
> The computer-based system includes central processing unit (CPU) 21, which, in operation, first loads software embodying the present invention into memory 22 from program storage medium 23. The software of the present invention is presented in flow chart form in FIGS. 4A and 4B, and is shown in detail in the program listing of the Appendix hereto. n6 Program storage medium 23 can be any machine readable storage medium such as, for example, a floppy or hard magnetic or optical disk, or a programmable read-only memory. The computer system further includes display 24 which is connected in a known manner through display control bus 26, display interface 27, and internal data/address bus 28 to CPU 21. The computer-based system also includes an x-ray sensor 29 which is connected through sensor cable 31, digitizer 32, and internal data/address bus 28 to CPU 21. To acquire x-ray images, sensor 29 is used with x-ray source 33 to produce two-dimensional x-ray images of dentition 34.
>
> n6 Apparently, the Appendix contains code that does not actually perform the functions stated and is not the software code of the invention.

[*54]

The computer system can be any computer and hardware display. In the preferred embodiment, an IBM AT compatible PC computer, available from Jameco Electronics is used. This preferred computer system includes an Intel 33 MHz 80386 CPU with 8 megabytes of system RAM, 40 megabytes of hard disk drive, 5.25 and 3.5 inch floppy disk drives, a SuperVGA noninterlaced 1024X768 pixel display adapter, a noninterlaced SuperVGA monitor, and an AT key style keyboard. However, other combinations of commercially available components can also be used without departing from the scope of the invention.

As noted above, the structure must not only perform the claimed function, but the specification must clearly associate the structure with performance of the function. Thus, we are looking for the structure that performs the function of generating and displaying a representation of an intra-oral radiograph holder. Corresponding structure need not include all things necessary to enable the claimed invention to work, but must include all structure that actually performs the recited function. *Asyst Techs., Inc. v. Em-*

pak, Inc., 268 F.3d 1364, 1371 (Fed. Cir. 2001). Following these principles, [*55] Defendants' inclusion of program storage devices in the corresponding structure cannot be correct, because the program storage devices, as described in the specification, simply store the software that is to be loaded onto the computer, but do not perform any of the functions described in the claim. The structure also does not include a monitor or display, because the display is already explicitly included in the claim, and the structure must generate and/or display "on said display." Thus, all that remains as possible structure from the specification's listing of items included in the computer-based system is a CPU with software "embodying the present invention" loaded into memory and devices connecting the CPU to the display, namely a display control bus, display interface, and internal data/address bus. While the display control bus, display interface, and internal data/address bus may be necessary to the act of displaying, they are not actually performing the displaying but are merely devices that allow data transmission, as is the display adapter listed in the preferred embodiment. Thus, what remains is the CPU with software "embodying the present invention," which is "presented [*56] in flow chart form in FIGS. 4A and 4B."

In *WMS Gaming, Inc. v. International Game Technology*, 184 F.3d 1339 (Fed. Cir. 1999), the Federal Circuit construed a means-plus-function limitation in a claim involving a slot machine. The Court noted that the parties stipulated that the patent discloses a microprocessor, or computer, to control the operation of the slot machine, and the algorithm that controlled the assignment of numbers to stop positions was disclosed in figure 6 of the patent. The Court noted that the structure of a microprocessor programmed to carry out an algorithm is limited by the disclosed algorithm. Thus, "a general purpose computer or microprocessor programmed to carry out an algorithm creates a new machine, because a general purpose computer in effect becomes a special purpose computer once it is programmed to perform particular functions pursuant to instructions from program software.'" *Id.* at 1348. "The instructions of the software program that carry out the algorithm electrically change the general purpose computer by creating electrical paths within the device. These electrical paths create a special purpose machine for carrying [*57] out the particular algorithm." *Id.* The Court then held that, "in a means-plus-function claim in which the disclosed structure is a computer, or microprocessor, the disclosed structure is not the general purpose computer, but rather the special purpose computer programmed to perform the disclosed algorithm." *Id.* at 1349. Thus, the disclosed structure was "a microprocessor programmed to perform the algorithm illustrated in Figure 6." *Id.*

Recently, the Federal Circuit reaffirmed that *WMS Gaming* restricts computer-implemented means-plus-function terms to the algorithm disclosed in the specification. *Harris Corp. v. Ericsson, Inc.*, 417 F.3d 1241, 1253 (Fed. Cir. 2005). In other words, "[a] computer-implemented means-plus-function term is limited to the corresponding structure disclosed in the specification and equivalents thereof, and the corresponding structure is the algorithm." *Id.* In that case, the Court held that the corresponding structure for the "time domain processing means" was "a microprocessor programmed to carry out a two-step algorithm in which the processor calculates generally non-discrete estimates and then selects the [*58] discrete value closest to each estimate."

Based on these precedents, the Court concludes that Plaintiffs' proposed construction of "a software program running on a computer connected to the display" is too broad, since the structure is not just any software program, but the one referred to in the specification that carries out the function.

The Court adopts the parties' construction of the function as "generating and displaying a representation of an intra-oral radiograph

holder including selectable intra-oral radiological sites arranged according to anatomical location of said sides." The Court finds that the structure associated with this function is a CPU, connected to the display, programmed with software that performs the steps illustrated in Figures 4A and 4B.

B

means, responsive to selection of said selectable sites, for displaying corresponding stored x-ray images

Plaintiffs appear to advance two functions for this element. On page 9 of their opening claim construction brief, they state that the function of the last element of claim 4 is "displaying corresponding stored x-ray images in response to selection of said selectable sites." However, on [*59] page 35, they state that the function is "displaying stored x-ray images of anatomical regions designated by selected radiological sites." Plaintiffs argue that the corresponding structure is "a computer-based system" having a monitor (or other computer display device) and software, or, in other words, "a software program running on a computer connected to the display."

Defendants argue that the second means-plus-function limitation recites the function of "displaying corresponding stored x-ray images," with a further qualification that the structure is "responsive to selection of said selectable sites." They argue that the structures are the same as above, with the addition of a keyboard, mouse, touch-sensitive screen, or other functionally equivalent user input device for selection of sites. Thus, Defendants request that the means-plus-function claims be construed as covering the devices disclosed in the specification for program storage and execution connected to a display and the equivalents of those structures. Plaintiffs argue that the function is directed to structures that are responsive to selection, not to structures that do the selecting and thus the structures corresponding [*60] to the function of displaying need not include all the particular devices identified in the specification for performing the function of selecting. Defendants assert that Plaintiffs' proposed construction is misleading by its omission of structures referenced in the specification that are necessary to carry out the functions. Further, Defendants argue, by referring simply to a "computer," Plaintiffs introduce elements that are not required to carry out the functions because computers may consist of many components that are unnecessary and irrelevant to the claimed functions, and the Court should neither include structures that are not necessary to perform the recited function nor omit structures that are necessary. Plaintiffs argue that even if the construction must include structures that do the selecting, the specification identifies a keyboard, mouse, touch-sensitive screen *or* other functionally equivalent user input device, and thus an accused structure would not need to include all of these particular devices.

The Court finds that the function of this element is "displaying stored x-ray images corresponding to selectable sites in response to selection of those sites." The [*61] Court finds that the structure associated with this function is a CPU, connected to the display, programmed with software that perform the steps illustrated in Figure 4B. The Court agrees with Plaintiffs' that the function is displaying in response to selection, not selecting, and thus it need not include structures that do the selecting.

E. "Stored," "Storing," "Storage," and "Memory"

These terms appear in the claim language as follows:

1. A method of displaying *stored* intra-oral radiographs, comprising:

> . . .
>
> displaying a *stored* intra-oral radiograph corresponding to said selected target intra-oral radiological site.

2. A method for *storing* and displaying intra-oral radiographs, comprising: generating and displaying intra-oral radiographs of dentition;

> . . .
>
> *storing* said intra-oral radiograph images responsive to selection of intra-oral radiological sites in said representation along with indicia of respective selected intra-oral radiological sites; and
>
> subsequently retrieving and displaying said intra-oral radiographs responsive to selection of respective intra-oral radiological sites in said representation. [*62]

3. A program *storage* device readable by a machine and tangibly embodying a representation of a program of instructions adaptable to be executed by said machine to perform the method of any one of claims 1 or 2.

4. A device for *storing* and displaying intra-oral radiographs, comprising:

> . . .
>
> a *memory* in which said x-ray images are *stored*;
>
> . . .
>
> means, responsive to selection of said selectable sites, for displaying corresponding *stored* x-ray images.

5. The device of claim 4, further comprising:

> an image digitizer for digitizing x-ray images produced by said sensor before *storage* in said memory.

The parties originally submitted an agreed construction of "stored, storage, and memory" as referring to "any form of volatile or non-volatile data storage, including but not limited to hard disk drives, random access memory ["RAM"], floppy disks, and optical media, in addition to any other data storage devices or means." However, Plaintiffs later withdrew their agreement to this construction.

Defendants argue that the Court should order that these terms include any means or device for data storage, including [*63] but not limited to random access memory ("RAM"). Otherwise, Defendants assert, jurors might incorrectly draw a distinction between easily recognizable and dedicated devices for data storage, such as floppy disks and hard drives, and RAM. However, Defendants argue, the specifi-

cation clearly includes RAM as a means for storing information in conjunction with the claimed invention, and thus the jury should have clear guidance that RAM is one possible form of memory and carries out the function of storage.

Plaintiffs agree that "memory," "storage," and "stored," encompass all types of computer memory, but take issue with Defendants' request for clear guidance that RAM carries out the function of storing because it would conflate the media on which the action of storing may be done with the action of storing. Plaintiffs assert that whether the RAM in an accused device or an alleged prior art device is being used to perform the function of recording, retaining, or preserving radiographic images and whether that function is being done "responsive to selection" is a fact issue that should be reserved to the jury. Thus, whether the RVG performed the function of "storing" is a fact issue for [*64] the jury. Plaintiffs contend that the terms are plain and ordinary on their face and need no construction. Plaintiffs argue that construing these terms could be confusing to the jury. Plaintiffs are also opposed to a jury instruction stating or suggesting that the mere existence of data in volatile memory or RAM necessarily and always establishes that the data has been stored there.

"Storage" is used in claim 3 in the context of a "program storage device." Program storage devices are defined in claim 3 as being readable by a machine and tangibly embodying a representation of instructions adaptable to be executed by said machine, and thus program storage device refers to a device for storing the software that performs the methods of claims 1 and 2, which is loaded ont a computer. The specification states that "program storage medium can be any machine readable storage medium such as, for example, a floppy or hard magnetic or optical disk, or a programmable read-only memory." Column 3, lines 4-7. Contrary to Defendants' argument, *see* Joint Claim Construction Statement (docket no. 75) at 11, this portion of the specification does not describe the memory onto which x-ray images are [*65] stored, but describes only the program storage medium, *i.e.*, the media on which the software to be loaded onto the computer memory can be stored. The program storage medium (item 23 on Figure 1) and the memory (item 22) are clearly distinct, and thus the listing of program storage media does not apply to the memory.

Claims 4 and 5 refer to a memory in which x-ray images are stored and to x-ray images being digitized before storage in said memory. The summary of the invention also states that, "the images are then stored, preferably after digitization, in a computer memory." Column 2, lines 18-20. Figure 1 depicts the memory, and the specification also states that the CPU loads software embodying the present invention into memory. However, neither Figure 1 nor the specification describe the memory. The only possible description can be in the preferred embodiment, which describes a computer with 8 megabytes of system RAM and 40 megabytes of hard disk drive. The claim language also makes clear that stored x-ray images correspond to selectable sites and are stored in response to selection of those sites. Further, the images are "subsequently" retrieved and displayed in response to [*66] selection of the sites, indicating that they are stored for subsequent retrieval. Thus, "storing" means "placing in memory for subsequent retrieval," and "stored" means "placed in memory for subsequent retrieval." "Storage" as used in claim 5 means "placement in memory for subsequent retrieval." The real dispute centers on what is meant by the term "memory" and whether it includes random-access memory ("RAM"). n7

n7 This is relevant because the parties dispute whether the RVG 32000, which apparently utilized RAM but not

long-term storage media, "stored" the radiographs or merely displayed them.

As noted, Plaintiffs originally stipulated that "memory" could include RAM, but now oppose a construction stating that placement of x-rays in RAM would constitute the act of storing. Plaintiffs argue that placement of the x-rays in RAM or volatile memory "does not *necessarily* establish that the action of storing' has occurred -- at least not in the sense of saving the information long-term for later retrieval, as [*67] described on columns, 5-6 of the 579 specification." Further, Plaintiffs argue, though the specification describes a preferred embodiment of a computer system that includes RAM, it never describes RAM as a storage device, and the specification indicates that a radiographic image can reside on display memory (RAM) before it is stored.

Defendants argue that Plaintiffs should be held to their prior agreed construction, which is consistent with the specification's description of the preferred embodiment and is consistent with the extrinsic evidence. Defendants point to Dr. Dove's deposition testimony in a related case over the same patent, in which he testified that "stored" means "it resides somewhere . . . it can be in computer RAM memory, on memory. It could be stored on the hard drive, CD-ROM. It could be stored somewhere. There are more storage devices in computers." He also agreed that "both volatile [RAM] and nonvolatile memory is what the patent was referring to in terms of retrieving images that were stored." Defendants further point to Plaintiffs' argued construction in the recently filed and settled patent infringement suit (involving this same patent) against Planmeca U. [*68] S.A., in which they stated that "the 579 specification supports a broad construction of these computer memory and storage terms. The 579 specification describes both volatile and non-volatile types of computer memory. The preferred computer at that time included 8 megabytes of RAM,' which is a type of volatile memory, and 40 megabytes of hard disk drive,' which is a type of non-volatile memory."

The Court agrees with Defendants that "memory" is not limited by the specification to any particular type of memory, but could include RAM or hard disk space as described in the specification. Plaintiffs argue that placement in RAM is not storage "in the sense of saving the information long-term for later retrieval, as described on columns 5-6 of the 579 specification." However, while the specification indicates that various exams corresponding to different dates and times can be stored, *see* Column 3, line 59-60, Column 4, lines 3-5, and Figure 2 (displaying four intra-oral examinations conducted over sixteen months), tending to indicate a long-term storage, a close reading of the specification reveals that there is no indication that the invention relates *only* to such long-term [*69] storage. It does not even state that the x-rays will continue to be stored after the computer or program is shut down. Thus, the Court construes the term "memory" as "any form of volatile or non-volatile computer memory, including random-access memory (RAM) and hard disk drive space."

F. Agreed terms

The parties have agreed to constructions of several claim terms and urge the Court to adopt their constructions. The Court adopts the constructions as follows:

"Radiographs" is construed as "images produced by x-rays."

"Radiograph images" is construed as "images produced by x-rays."

"Intra-oral radiographs" is construed as "images produced by x-rays captured by a film or sensor placed within the mouth.

"Dentition" is construed as "tooth or teeth."

"Indicia" is construed as "referential information."

"Retrieving" is construed as "accessing."

"Selecting" is construed as "any act of selecting, including but not limited to cursor movement or keystroke."

"Selectable" is construed as "selectable by any act of selecting, including but not limited to cursor movement or keystroke."

"Selected" is construed as "selected by any act of selecting, including but not limited to cursor [*70] movement or keystroke."

"Tangibly embodying a representation of" is construed as "containing or storing for execution."

"Generating" in the context of "generating and displaying intra-oral radiographs of dentition" is construed as "acquiring."

"Generating" in the context of "generating and displaying a representation of an intra-oral radiograph holder" is construed as "creating."

SIGNED this 26th day of January, 2006.

XAVIER RODRIGUEZ

UNITED STATES DISTRICT JUDGE

EXHIBIT 3

1 of 1 DOCUMENT

DIGEO, INC., Plaintiff, v. AUDIBLE, INC., Defendant.

CASE NO. C05-464JLR

UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF WASHINGTON

2006 U.S. Dist. LEXIS 22715

March 27, 2006, Decided
March 27, 2006, Filed

COUNSEL: [*1] For Digeo Inc, a Delaware corporation, Plaintiff: Douglas Anderson Grady, Lawrence D Graham, Mark Lawrence Lorbiecki, BLACK LOWE & GRAHAM, SEATTLE, WA.

For Audible Inc, a Delaware corporation, Defendant: Brian D Buckley, Kit W Roth, Stellman Keehnel, PIPER RUDNICK GRAY CARY, SEATTLE, WA; Kristine M Boylan, MERCHANT & GOULD (MN), MINNEAPOLIS, MN; Regina Vogel Culbert, Richard Carl Siefert, MERCHANT & GOULD (WA), SEATTLE, WA; Steven B Kelber, MERCHANT & GOULD (DC), WASHINGTON, DC.

For Digeo Inc, a Delaware corporation, Counter Defendant: Lawrence D Graham, BLACK LOWE & GRAHAM, SEATTLE, WA.

JUDGES: JAMES L. ROBART, United States District Judge.

OPINIONBY: JAMES L. ROBART

OPINION:

ORDER

I. INTRODUCTION

This matter comes before the court on the parties' request for construction of the claim terms at issue in this patent infringement action. The court has reviewed the parties' briefing and supporting materials, and has heard oral argument at a February 27, 2006 Markman hearing. This order memorializes the court's claim construction.

II. BACKGROUND

Plaintiff Digeo, Inc. ("Digeo") is the assignee of United States Patent No. 5,734,823 (the "823 Patent"), which covers a system for [*2] distributing electronic information from a central information bank to units on a network. Defendant Audible, Inc. ("Audible") distributes audio media content over the internet. Digeo claims that Audible's distribution system infringes the 823 Patent.

Because the prosecution history of the 823 Patent figures prominently in the parties' claim construction arguments, the court summarizes it here. The 823 Patent's oldest parent is United States Patent Application No. 07/787,536 (the "536 Application"). Michael Saigh was the sole inventor listed on the application, which he filed in November 1991. He eventually abandoned the application.

In August 1994, Mr. Saigh filed a continuation of the 536 Application, United States Patent Application No. 08/296,120 (the "120 Application"). n1 After another continuation, the 120 Application issued as United States Patent No. 5,734,891 (the "891 Patent"), which is not at issue in this action. The 891 Patent focused on a "personal library apparatus," a device that a user could employ to receive information from the information distribution network. The 891 Patent issued on March 31, 1998, the same date as the 823 Patent.

n1 The first page of the 823 Patent refers to the 120 Application as a "continuation-in-part," an assertion at odds with the 120 Application and the 891 Patent. The court notes that the 120 Application uses the written description from the 536 Application without adding new matter, indicating that it is a continuation, not a continuation-in-part. See Applied Materials, Inc. v. Advanced Semiconductor Materials Am., Inc., 98 F.3d 1563, 1579 (Fed. Cir. 1996) (Mayer, J., concurring) (differentiating continuations from continuations-in-part).

[*3]

In December 1994, three other inventors joined Mr. Saigh in filing United States Patent Application No. 08/367,056 (the "056 Application"), a continuation-in-part of the 120 Application. The inventors rewrote the specification when they submitted the 056 Application. Whereas the 120 Application focused on the user's device for receiving and storing content from the information network, the 056 Application focused on the network itself.

The four inventors abandoned the 536 Application and filed a continuation in July 1996, United States Patent Application No. 08/687,292 (the "292 Application"). The 292 Application issued as the 823 Patent on March 31, 1998.

In the first step toward determining whether the 823 Patent is valid and whether Audible infringed it, the court must now construe the disputed patent terms.

III. ANALYSIS

Almost ten years ago, in Markman v. Westview Instruments, Inc., the Supreme Court placed sole responsibility for construing patent claims on the court. 517 U.S. 370, 372, 116 S. Ct. 1384, 134 L. Ed. 2d 577 (1996). The Federal Circuit later established that the court construes claims purely as a matter of law. Cybor Corp. v. FAS Techs., 138 F.3d 1448, 1456 (Fed. Cir. 1998) [*4] (applying de novo review to all claim construction issues, even "allegedly fact-based questions"). Executing the Markman mandate requires a court to interpret claims after giving the appropriate level of consideration to various sources of evidence.

Intrinsic evidence, which includes the patent and its prosecution history, is the primary source from which to derive a claim's meaning. Phillips v. AWH Corp., 415 F.3d 1303, 1314 (Fed. Cir. 2005) (en banc). A patent is composed of three parts: (1) a "written description," an often lengthy exposition of the background of the invention, at least one embodiment of the invention, and other written material that assists in understanding how to practice the invention; (2) (in most cases) a set of drawings that illustrates portions of the written description; and (3) the claims, which delimit the scope of the invention. General Foods Corp. v. Studiengesellschaft Kohle mbH, 972 F.2d 1272, 1274 (Fed. Cir. 1992). Together, these three components make up the patent's "specification." n2 Atmel Corp. v. Information Storage Devices, Inc., 198 F.3d 1374, 1384 (Fed. Cir. 1999); 35 U.S.C. § 112 [*5] .

n2 Although 35 U.S.C. § 112 includes the claims as part of the specification, many courts and practitioners use the term "specification" to refer to all portions of a patent except the claims. In most instances, the context will reveal what portion of the specification is at issue.

The prosecution history exists independently of the patent. It consists of the inventor's application to the United States Patent and Trademark Office ("PTO") and all correspondence between the PTO and the inventor documenting the invention's progress from patent application to issued patent. Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996).

In its review of intrinsic evidence, the court begins with the language of both the asserted claim and other claims in the patent. Phillips, 415 F.3d at 1314; Biagro Western Sales, Inc. v. Grow More, Inc., 423 F.3d 1296, 1302 (Fed. Cir. 2005) ("It is elementary that claim construction begins with, [*6] and remains focused on, the language of the claims."). The court's task is to determine the "ordinary and customary meaning" of the terms of a claim through the eyes of a person of ordinary skill in the art on the filing date of the patent. Phillips, 415 F.3d at 1313 (quoting Vitronics, 90 F.3d at 1582). Sometimes, the ordinary meaning is "readily apparent even to lay judges," in which case claim construction "involves little more than the application of the widely accepted meaning of commonly understood words." Id. at 1314.

The court must read claim language, however, in light of the remainder of the specification. Id. at 1316 ("[T]he specification necessarily informs the proper construction of the claims."). In cases where the ordinary meaning of a claim term seems apparent from its use in the claim, the court must consult the specification either to confirm that meaning or to establish that the inventor intended a different meaning. Superguide Corp. v. DirecTV Enters., Inc., 358 F.3d 870, 875 (Fed. Cir. 2004). If the ordinary meaning is not apparent from its use in the claim, the court looks to the specification to provide [*7] meaning. Johnson Worldwide Assocs., Inc. v. Zebco Corp., 175 F.3d 985, 990 (Fed. Cir. 1999). The specification acts as a "concordance" for claim terms, and is thus the best source beyond claim language for understanding claim terms. Phillips, 415 F.3d at 1315. The inventor is free to use the specification to define claim terms as she wishes, and the court must defer to an inventor's definition, even if it is merely implicit in the specification. Id. at 1316 ("[T]he inventor's lexicography governs."), 1320-21 (noting that a court cannot ignore implicit definitions). The court should "rely heavily" on the specification in interpreting claim terms. Id. at 1317.

When the court relies on the specification, however, it must walk a tightrope between properly construing the claims in light of the written description and the "cardinal sin" of improperly importing limitations from the written description into the claims. SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc., 242 F.3d 1337, 1340 (Fed. Cir. 2001); Phillips, 415 F.3d at 1323 (citing Comark Communications, Inc. v. Harris Corp., 156 F.3d 1182, 1186-87 (Fed. Cir. 1998)). [*8] A patentee often describes examples or "embodiments" of his or her invention in the written description, but courts may not limit the invention to an embodiment absent clear evidence, that a patentee "intends for the claims and the embodiments . . . to be strictly coextensive." Phillips, 415 F.3d at 1323.

Although a patent's prosecution history is also intrinsic evidence, it is "less useful for claim construction purposes," because it usually "lacks the clarity of the specification." Id. at 1317. The prosecution history is useful, however, in determining if an inventor has dis-

avowed certain interpretations of his or her claim language. Id.

Finally, the court can consider extrinsic evidence, "including expert and inventor testimony, dictionaries, and learned treatises." Id. (citing Markman v. Westview Instruments, Inc., 52 F.3d 967, 980 (Fed. Cir. 1995)). Extrinsic evidence is usually "less reliable than the patent and its prosecution history" as a source for claim interpretation. Id. at 1318. The court thus need not admit extrinsic evidence, but may do so in its discretion if intrinsic evidence does not disclose the meaning [*9] of a claim term. Id. at 1319; Vitronics, 90 F.3d at 1583 ("[W]here the public record unambiguously describes the scope of the patented invention, reliance on any extrinsic evidence is improper.").

In this case, the court has considered the parties' extrinsic evidence but declines to rely on it. The parties have asserted two kinds of extrinsic evidence: dictionary definitions of claim terms and expert testimony. For each disputed claim term, the intrinsic evidence is sufficient to either confirm that the inventors used the term in its ordinary sense or to reveal the precise departure from the ordinary meaning that the inventors intended. The court will not discuss the dictionary definitions of these claim terms, consistent with the Phillips court's recognition that it is not necessary to do so. 415 F.3d at 1318-19. For similar reasons, the court will not rely on the parties' experts in construing the claims. See Trilogy Communs., Inc. v. Times Fiber Communs., Inc., 109 F.3d 739, 744 (Fed. Cir. 1997) ("When . . . the patent specification and the prosecution history adequately elucidate the proper meaning of the claims, [*10] expert testimony is not necessary and certainly not crucial."). The intrinsic evidence provides an ample basis for interpreting the disputed terms of the 823 Patent.

With this general framework in mind, the court turns to the claim terms in dispute.

A. "Communicatively Coupled" Means "Connected in a Way that Permits Communication."

1. Ordinary Meaning

The term "communicatively coupled," which appears in asserted Claims 1, 6, 11, and 17, invariably describes the connection between a central information storage bank (the computer or array of computers that stores the universe of downloadable media content) and local units from which a user can download selected media. E.g., 823 Patent Claim 1 ("at least one local unit communicatively coupled to said central computer"); Claim 19 (same); Claim 6 ("a first interface to be communicatively coupled to the central computer"). The ordinary meaning of the term "coupled" is "connected," and the adverb "communicatively" suggests that the coupling is for the purpose of communication.

Digeo proposes a construction of "communicatively coupled" that reflects the term's ordinary meaning. Audible, however, contends that the [*11] term is limited to couplings on an "integrated closed network." At oral argument, Audible explained that an "integrated closed network" is a network that only preauthorized users can access. Audible does not contend that the "integrated closed network" limitation is inherent in the plain meaning of "communicatively coupled," nor could it. Audible must, therefore, point to evidence of a "clear disavowal of claim scope" through "words or expressions of manifest exclusion or restriction." ACTV, Inc. v. Walt Disney Co., 346 F.3d 1082, 1091 (Fed. Cir. 2003).

2. Specification

The claim language and specification provide no support for Audible's proposed construction, much less a "clear disavowal of claim scope" that would mandate a departure from the ordinary meaning of "communicatively coupled." When pressed at oral argument to point to any disclosure of a "closed" network in

the specification, Audible suggested that the description of a customer opening an account and obtaining an identification card was evidence that the patent disavows any "open" network. The disclosure, however, simply notes that in a "point of purchase delivery system" embodiment, the customer [*12] would obtain an access card before downloading content. 823 Patent at 10:40-11:17. The court is not at liberty to restrict the scope of the claims to conform to the description of an embodiment. Dow Chem. Co. v. Sumitomo Chem. Co., 257 F.3d 1364, 1378 (Fed. Cir. 2001) ("It is axiomatic that claims, not the specification embodiments, define the scope of protection.") (internal citation omitted). Even if the court were to limit the claims in accordance with the point of purchase embodiment, the embodiment does not require a "closed" network. Nothing in the description prohibits a user from accessing content without preauthorization. Authorization is necessary only if the user decides to *purchase* content.

In contrast to the single inapposite disclosure in the specification that Audible identified, the specification repeatedly discloses the use of unrestricted networks over which local units and a central information bank are communicatively coupled:

> Communication network links between the central information bank . . . and point of sale sites can be made utilizing one or a combination of many commercially available networks such as telephone, satellite or [*13] cable networks or any other medium suitable for transmitting information in a digitized format.

Id. at 5:21-27. The inventors also stated that one could use the internet as the "backbone" network for the invention. Id. at 5:28-30. The inventors *never* described the communication links between the central information bank and the local units as closed or restricted to preauthorized users. Instead, the means for protecting media content from unauthorized use are the encryption methods that the court will discuss later. See infra Part III.G; 823 Patent at 15:17-28. When the patentees wished to claim encryption methods, they did so by using explicit language covering encryption. The notion that the term "communicatively coupled" is limited to "closed" communication is inconsistent with the 823 Patent's written description and claim language.

3. Are Mr. Saigh's Pro Se PTO Communications Part of the Prosecution History?

The bulk of the support for Audible's proposed construction comes from the prosecution history. Before reviewing the history, however, the court must consider a dispute over whether it may consider certain communications from Mr. Saigh as [*14] part of the prosecution history. Each of the challenged communications is physically part of the prosecution history, in the sense that each is part of the public record. Nonetheless, Digeo urges the court to ignore at least some of the communications. Audible contends that the court cannot ignore them.

The court first reviews the context of the challenged communications. Mr. Saigh executed a power of attorney during the prosecution of the 120 Application, and a joint power of attorney with the other three inventors on the 056 Application. PH at 500-244-45 ('120), 500-442-45('056). n3 Nonetheless, Mr. Saigh submitted "pro se" communications to the PTO on several occasions, in violation of PTO rules. See Manual of Patent Examining Procedure ("MPEP") § 403. In response, the PTO took actions suggesting that it ignored the pro se communications. E.g., PH at 500-321, 500-591. The PTO also suggested, however, that it substantively considered the communications. E.g., 500-597 ("Applicant's arguments filed 12/27/95 have been fully considered but they are not

deemed to be persuasive."), 500-641 ("Applicant's arguments filed 12/27/95 and 7/25/96 have been fully considered but [*15] they are not deemed to be persuasive."). In the interim, Mr. Saigh purported to revoke the power of attorney. PH at 500-590. It is not clear whether the PTO applied the revocation prospectively or retrospectively. There are other entries that further complicate matters, but the court will summarize the situation succinctly: the prosecution history with respect to Mr. Saigh's communications is a big mess.

> n3 All citations to the prosecution history come from the sequential collection of each application's history. As each page number begins with "500-," the court will cite individual pages as "PH at 500-nnn," and ranges of pages as "PH at 500-nnn-nnn."

Fortunately, the court need not serve as housekeeper. The court assumes for the purposes of claim construction that Mr. Saigh's communications are part of the prosecution history, and that the court should examine them as it would any other entry in the prosecution history. It will become apparent that considering Mr. Saigh's communications does not prejudice Digeo. [*16]

4. Prosecution History

The fuss over Mr. Saigh's communications with the PTO arises because he made statements that serve, in Audible's view, to sharply limit the scope of the claims, including the scope of the term "communicatively coupled." In a November 1995 office action, the PTO rejected all claims pending in the 056 Application because a disclosure in the October 1993 issue of the Heller Report (an educational technology newsletter) either anticipated the claims or made them obvious. PH at 500-572; Culbert Decl. Ex. A. In addition, the same office action contained a "Notice of References Cited," PH at 500-575, along with a notice that the "prior art made of record and not relied upon is considered pertinent to applicant's disclosure." PH at 500-573.

Although the PTO had not rejected any claims based on any prior art other than the Heller Report, Mr. Saigh chose to discuss every reference in the "Notice of Prior Art" when he responded to the November 1995 office action. In a section addressing United States Patent No. 5,221,838 (the "Gutman Patent"), Mr. Saigh offered several bases for differentiating his invention:

> While the Gutman device is to be used in connection [*17] with an unrelated network for the transmission of data electronically, *the Applicant Invention represents an integrated closed network* for the electronic transfer of data representing intellectual properties composed of many bytes of data.

PH at 500-581 (emphasis added).

> While the Gutman device is not physically configured to make it suitable for reading or viewing intellectual properties comprised of many bytes of data, *the Applicant invention is a closed network* whose principal purpose would be the electronic transmission of such intellectual properties comprised of many bytes of data.

PH at 500-581 (emphasis added).

> While it would be reasonable to assume that the Gutman device will be principally used by the end user to interface with electronic networks or devices of unrelated persons to receive, store and transmit data related to the user electronically, [sic] n4 *Most likely, the Applicant invention would represent a closed integrated network* for the transfer of intellectual properties for the creator or owner to one or more persons desiring to purchase or lease the use of the data being transferred.
>
> n4 Mr. Saigh's communications to the PTO often contain typographical or grammatical errors. The court has attempted to reproduce them faithfully in its citations to the prosecution history.

[*18]

PH at 500-582 (emphasis added). Audible contends that these disclosures limit the scope of the claimed invention, and the term "communicatively coupled," to communication over a "closed integrated network." Audible Br. at 13. Audible seeks to invoke the doctrine of prosecution disclaimer. See Omega Eng'g, Inc. v. Raytek Corp., 334 F.3d 1314, 1323-25 (Fed. Cir. 2003). When a patentee has made "clear and unmistakable" statements disavowing claim scope, a court must interpret claims consistently with the disavowal. Id. at 1326; see also NTP, Inc. v. Research in Motion, 418 F.3d 1282, 1309 (Fed. Cir. 2005) (requiring "words or expressions of manifest exclusion or restriction representing a clear disavowal of claim scope"). Ambiguous disclaimers do not limit claim scope. See Omega Eng'g, 334 F.3d at 1325-26; see also Sandisk Corp. v. Memorex Prods., Inc., 415 F.3d 1278, 1287 (Fed. Cir. 2005). A court can limit claim terms by prosecution disclaimer only when the patentee's "arguments to the examiner have no reasonable interpretation other than to disavow" claim scope. Sandisk, 415 F.3d at 1287. [*19]

Mr. Saigh did not clearly and unmistakably disavow claim scope when he used the term "closed integrated network" during prosecution. Ambiguity pervades his statements. Mr. Saigh used the phrase, or variations of it, three times. In the first instance, he arguably made a distinction giving meaning to the phrase "integrated closed network," but it is not the distinction or meaning that Audible urges. The Gutman Patent describes a handheld "Electronic Wallet" used to conduct consumer transactions electronically. When Mr. Saigh described his invention as "an integrated closed network," he was distinguishing it from the "unrelated network" over which the Gutman wallet would transmit data. PH at 500-581. Beyond the semantic difference between the phrases, it is unclear what distinction Mr. Saigh sought to draw. The court finds no basis, however, to conclude that he was limiting his invention to networks in which all access is preauthorized, much less that he did so clearly and unmistakably.

In the remainder of Mr. Saigh's effort to distinguish the Gutman Patent, the phrases "closed network" and "closed integrated network" most likely carry the same meaning as they did in the instance the [*20] court described above. Mr. Saigh noted that the Gutman device was not suitable for "reading or viewing intellectual properties composed of many bytes of data," and stated that his invention is a "closed network whose principal purpose" is to allow transmission of many bytes of data. PH at 500-581. Mr. Saigh thus distinguished the amount of data the two inventions were meant to transport; he imparted no additional meaning to the term "closed." Similarly, in noting that the Gutman wallet connected the "end user" to "unrelated persons," whereas his invention

"represent[ed] a closed integrated network" for transfer between content owners and persons desiring to purchase or lease the content, PH at 500-581-82, Mr. Saigh distinguished his invention in a manner consistent with his initial use of the term "closed integrated network." The court therefore assumes that Mr. Saigh used the term as he had previously, to distinguish the "unrelated network" on which the Gutman wallet operates.

Audible contends that Mr. Saigh described his invention as operating on an "open-ended" network in the 120 Application, suggesting that his later adoption of the phrase "integrated closed network" was significant. [*21] The use of the term "open-ended," however, only injects more ambiguity into the prosecution history. In distinguishing a prior art reference, Mr. Saigh noted that the "system described in the [prior art] is a closed network, in that, for the most part, the system will be housed and operated within the same vicinity or building." PH at 500-332. By contrast, he deemed his invention an "open ended network," because "the data may be flowing into and out of the network from many diverse locations many of which may be quite far from each other (they could be half a world away)." Id. Mr. Saigh made the same distinction in discussions of at least two other pieces of prior art. PH at 500-340, 500-343. Following Audible's logic, when Mr. Saigh later allegedly limited his invention to a "integrated closed network," he disavowed the practice of the invention on any network except one housed "in the same vicinity or building." Such a limitation is preposterous in light of the specification and the claims. Indeed, the illustration on the first page of the 823 Patent shows a network operating across the United States.

In examining another prior art reference in the prosecution of the 120 [*22] Application, Mr. Saigh declared that it did not matter whether his invention operated on a closed or open network. PH at 500-337 ('The Saigh Patent System *could be* Operated as part of an open access system or network or a closed computer system or network.") (emphasis added). This is consistent with the later entry in the prosecution history on which Audible urges the court to rely. PH at 500-582 ("*Most likely*, the Applicant invention would represent a closed integrated network for the transfer of intellectual properties . . .") (emphasis added).

Mr. Saigh's pro se contributions exemplify the Federal Circuit's observation in Phillips that the prosecution history "often lacks the clarity of the specification and thus is less useful for claim construction purposes." 415 F.3d at 1317. The court can only speculate about why Mr. Saigh addressed the Gutman Patent at all, given that the PTO had not rejected any claims in light of it. In addressing the Gutman Patent, he may or may not have used variations of the phrase "integrated closed network" to make a distinction, but that distinction is murky at best. The court has noted that his references are subject to numerous [*23] interpretations. Audible cannot prevail merely by offering its best interpretation of Mr. Saigh's statements, even if its interpretation is reasonable. Audible must show that Mr. Saigh clearly and unambiguously disavowed the practice of his invention on any network except one that required preauthorization before accessing it. It has not met that burden here.

For these reasons, the court interprets the term "communicatively coupled" consistent with its ordinary meaning and the specification of the 823 Patent. The term means "connected in a way that permits communication."

B. A "Local Unit" is "an Element of the Network Separate from the Central Information Bank."

The term "local unit" appears in asserted claims 1, 3, 11, 15, 17, 19, and 23. In each of the claims, the "local unit" is the unit that is "communicatively coupled" to the central information bank. The central information bank

is presumptively at a distance from the end user, whereas the "local unit" is close to the user, because it is the device from which he or she can download content from the system. In this context, the ordinary meaning of the term "local unit" is a unit that is a member of a network that [*24] includes a central information bank, but is more "local" to the user than the central information bank. Again, Digeo's proposed construction reflects the ordinary meaning. Again, Audible proposes a construction divorced from the ordinary meaning: "a self-service user interactive information vending device, such as a kiosk or book bank." Audible Br. at 15.

Although the specification does not use the term "local unit," it uses the words "unit" and "local" in a manner consistent with the ordinary meaning noted above. A "unit" is simply an element in the network. Sometimes it is an element contained within a larger element. E.g., id. at 2:52-53 (disclosing a "central processing unit contained within the Book Bank"); 7:43-45 (disclosing a central processing unit in a file-server). In other instances, a "unit" may be a stand-alone element. E.g., id. at 14:9-10 (disclosing a separate "memory storage unit"); id. at 14:35-41 (disclosing promotional units).

The adjective "local" usually refers to a capability or feature contained within something, as opposed to a capability or feature that it must get from another unit or system. In this vein, the patent discusses a "customer [*25] service terminal" with "local processing capability," id. at 7:33-34, and a "Book Bank" that contains "local memory storage," id. at 2:44-45. In other disclosures, the specification uses "local" to refer to areas away from the central hub of a system. E.g., id. at 7:65-67 (discussing how external "network systems such as institutional or corporate network systems with local merchants terminals" can be coupled to the network).

The "local unit" of the asserted claims is a unit with particular capabilities that the surrounding claim language describes explicitly. In Claim 1, for example, the local unit must be communicatively coupled to the central computer, and it must include memory for storing information from the central computer, as well as a processor for transferring the stored information to a user's storage media. The local unit must also be configured to dynamically encrypt information.

Despite these explicit limitations, Audible insists that the term "local unit" contains implicit limitations as well. Audible focuses on the "Book Bank," which the specification describes as the "interface between the network and the user," id. at 2:37-38, and explains that [*26] it is a "self-service, user interactive information vending device."

Id. at 2:43-44. In "one embodiment," the Book Bank is housed in a kiosk that permits an in-store user to select and purchase media content. Id. at 8:14-38 & Fig. 5. The in-store kiosk is merely an embodiment of a local unit, and the court declines Audible's invitation to treat it as a limitation on the term. See Dow Chem., 257 F.3d at 1378. The specification's description of the Book Bank as a "self-service, user interactive information vending device" is not meant to limit the term "local unit," but rather to illustrate a local unit in accordance with the claims. Even if the court agreed that the Book Bank is the only embodiment of a local unit in the specification, the Federal Circuit has "expressly rejected" the notion that the court must construe the term in accordance with a single embodiment. Phillips, 415 F.3d at 1323. Patentees are encouraged to use examples to illuminate their claims. See id. ("[I]t is important to keep in mind that the purposes of the specification are to teach and enable those of skill in the art to make and use the invention and [*27] to provide a best mode for doing so."). Absent a clear disavowal of full scope of "local unit," the court declines to penalize the inventors of the 823 Patent for providing an example of their

invention that is not as broad as the scope of the patent.

For these reasons, the court construes the term "local unit" as "an element of a network separate from the central information bank."

C. "Electronic Storage Media" is "Memory Configured to Store Information in a Format that an Electronic Device Can Read" and "Storing, in Electronic Form, Information" Means "Storing Information in a Format that An Electronic Device Can Read."

The terms "electronic storage media" and "storing, in electronic form, information" appear in asserted claims 1,3,6, and 19. In each of these claims, the unit in communication with the central information bank contains a "memory for storing, in electronic form, information transmitted to" the unit from the central information bank.

The unit in turn is configured to transfer information to the "electronic storage media" of system users. The parties' proposed definitions are equivalent -- both agree that the terms refer to the storage of information [*28] in an electronic format. The parties disagree sharply, however, over the meaning of "electronic." Digeo contends that "electronic" is a generic term that covers a wide variety of storage media, including but not limited to computer hard drives, floppy disks, magnetic tapes, and compact disks. Audible contends that "electronic," as it is used in the claims, covers only memory that stores information in the form of "electrical signals," and excludes all other memory, including magnetic memories (such as hard disks, floppy disks, and magnetic tapes) and optical memories (such as compact disks).

Digeo's interpretation of the term "electronic" seems to the court to be consistent with the ordinary meaning of the term and its use in the claim language. Audible's interpretation seems strained, but as the court is not of skill in the art of networked information systems, the court looks to the specification to illuminate the ordinary meaning.

The court finds the specification inconsistent with Audible's narrow interpretation. The patentees were aware of a broad range of storage mediums, including "tapes, diskettes, cartridges, laser disk[s]," and "compact disk[s]." 823 Patent at 1:22-23. In [*29] a list of storage mediums on which publishers might provide content for the invention, the patentees mentioned "magnetic or electronic disks, cartridges, or tape reels or compact disks, laser disks, tape cassettes, etc." Id. at 3:62-63. Audible seizes upon the first "or" in the phrase, insisting that the patentees drew a distinction between "magnetic" media and "electronic" media. In Audible's view, because the patentees only claimed "electronic" media, they surrendered all else.

In its briefs, Digeo contended that Audible's interpretation of "electronic storage media . . . would exclude any known computer-readable storage device." Digeo Reply Br. at 11. When the court echoed that concern at oral argument, Audible responded with a 12-page supplemental brief (Dkt. # 41) with extrinsic evidence showing that there is a species of media that is electronic, but not magnetic or optical, and that this species was known in the art during the prosecution of the 823 Patent. With apologies to Shakespeare, the court finds that Audible doth protest too much. The question is not whether specialized "electronic" media existed, but whether the patentees intended to limit the practice of their [*30] invention solely to such media. If they had so intended, one would expect the specification to indicate this choice with something other than a single ambiguous use of the word "or." If the patentees had so intended, one would expect the intrinsic evidence to contain a reference to the specialized "electronic" media. If the inventors intended to exclude the most common storage mediums (i.e., hard disks, floppy disks, and compact

disks), the court expects that the inventors would have said so.

Moreover, the claims themselves suggest that the patentees were not concerned with specialized "electronic" media. Although several claims refer to the end user's media as "electronic storage media," e.g., Claims 1-5, several others refer simply to "storage media," e.g., Claims 11-14, 17-18, whereas others use the term "memory unit," e.g., Claims 6-10, 27, 29-30. In Claim 19, the inventors simultaneously claimed the more general "storage media" with the supposedly more specific "electronic storage media." In claims depending from Claim 19, the patentees continued to switch between the two terms without explanation. If the court were to follow Audible's logic, it would be forced [*31] to conclude patentees sometimes chose to exclude a vast array of media, and sometimes did not, and did so with no explanation whatsoever. The court finds this implausible.

Audible also points to the prosecution history in support of its proposed construction, but again asks the court to read too much into the inventors' choice of words. In a preliminary amendment at the outset of the 292 Application, the patentees inserted the word "electronic" to modify "storage media" in the claims. PH at 500-618-23. Nowhere in the history, however, is there a suggestion that the patentees were making a distinction between "electronic" media in the sense that Audible uses the term and other forms of media. n5 The patentees did not make the distinction in their remarks accompanying the preliminary amendment. PH at 500-628-33. The PTO did not acknowledge the distinction in rejecting the preliminary amendment. PH at 500-638-42. The patentees did not make the distinction in their response to the rejection. PH at 500-645-653. The PTO did not note any distinction when it allowed the claims as drafted in the preliminary amendment. PH at 500-655-56. As the court has already noted, there can be no prosecution [*32] disclaimer absent a clear and unambiguous disavowal of claim scope. The court finds no disavowal of claim scope inherent in the patentee's use of the word "electronic."

n5 Although Audible does not acknowledge it, the patentees used the phrase "storing, in electronic form" in their claims since they filed the 056 Application. PH at 500-435. This casts more doubt on Audible's assertion that they surrendered claim scope when they later added the word "electronic" to the claim phrase "storage media."

For the reasons stated above, the court concludes that "electronic storage media" means "memory configured to store information in a format that an electronic device can read," and that "storing, in electronic form, information" means "storing information in a format that an electronic device can read." The term "electronic" does not exclude magnetic or optical media such as hard drives, floppy disks, or compact disks.

D. "Information" means "Anything that Can be Represented in Electronic Form, Including Text, [*33] **Sound Recordings, and Images."**

Claims 1, 3, 6, 11, 17, and 19 use the term "information." The ordinary meaning of this term is readily apparent, so much so that the best definition the court can give is a tautology. "Information" means "information." Digeo's proposed definition, "anything that can be represented in electronic form, including text, numbers, sound recordings, and/or visual representations," follows the ordinary meaning and adds the limitation that the information be of the sort that one can represent in an electronic format. Audible does not argue that the ordinary meaning of the term is different, but insists that the patentees limited the claimed "in-

formation" to "content that is obtained from a publisher and that is visually perceived by a user." Audible's proposed construction presents two questions for the court: whether the invention covers only information that a user can see, and not information that a user can hear; and whether the claimed "information" is solely information that comes from a content publisher?

1. Did the Patentees Limit Their Claims to Visual Information?

The specification contradicts Audible's claim that the 823 Patent covers [*34] only visually perceptible information. In describing the "Book Bank" unit in the system, the inventors explained that "[a]lthough the term Book Bank may imply book-type' material, such term is not so limited. The material may be of many types, such as movies, music, video, audio, and computer software material." 823 Patent at 2:37-42. Nothing in the remainder of the specification suggests that the inventors reversed course and limited their invention to visually perceptible information. n6

> n6 Although it is not dispositive of the issue, the court notes that the end user device that the 891 Patent covers contains a set of headphones. 891 Patent, Figs. 1-2. Headphones would be an unusual accessory if the patented system from which the device is to obtain information did not transmit information that a user could experience audibly.

Again, Audible relies on the prosecution history to provide what the specification does not. In a December 1995 pro se communication, Mr. Saigh stated that his invention "relates [*35] to the transmission, storage, and encryption of the software instructions and codes that will generate a visual image upon the monitor of the user reading device. . . ." PH at 500-585. Had Mr. Saigh been distinguishing his invention from a prior art reference relating to audible information, the court might accept his statement as evidence of a surrender of claim scope. Instead, he was distinguishing a reference that described a "Visual Interface for Retrieval of Electronic Formed Books." PH at 500-584. Audible also notes that Mr. Saigh described his invention as a "network designed for the electronic transmission of intellectual properties . . . to one or more end users with the data to be viewed by the user. . . ." PH at 500-586. Once again, Mr. Saigh was distinguishing his invention over a reference describing electronic books, PH at 500-585, leaving the court with no basis to conclude that he was disclaiming coverage for non-visual information.

2. Did the Patentees Limit Their Claims to Information Acquired from Publishers?

The 823 Patent contains countless references to information of many types. One type is the media content (i.e., the "movies, music, video, audio, [or] [*36] computer software material" disclosed in Column 2) that publishers provide for distribution over the patented system. Another type is transactional information, including information related to the number of times a user copies an item on the network (e.g., Claim 7), information related to the length of time in which a user accesses an item from the network (e.g., Claim 14), and "information related to transactions performed by" the first unit of the local unit (Claim 11). Still another type is information stored on the user's storage media that assists in encrypting information. Claim 3 (disclosing a "local unit further configured to utilize information stored on the electronic storage media to encrypt information"). n7 The specification contains numerous disclosures of each of these types of information.

> n7 Audible does not seek a construction of the term "information" as it is used to refer to the encryption-related in-

formation on the user's storage media. Audible Br. at 22. Nonetheless, the court must assume, "unless otherwise compelled," that the same claim term used in the same patent "carries the same construed meaning." Omega Eng'g. Inc. v. Raytek Corp., 334 F.3d 1314, 1334 (Fed. Cir. 2003).

[*37]

Each of the foregoing examples illustrates that when the patentees wished to limit "information" to information of a particular type, they did so by including explicit language in the claim. Where claims cover solely transactional or encryption-related information, the limitation is unambiguous. But in discussing the "information" to be sent from the network to the user's storage media, the patentees included no restriction limiting that information to information obtained from the publisher. For that reason, the court finds no basis for limiting the generic term "information" to information that comes from a publisher. See Johnson Worldwide, 175 F.3d at 989 ("[M]odifiers will not be added to broad terms standing alone.").

For the foregoing reasons, the court construes "information" to mean "anything that can be represented in electronic form, including text, sound recordings, and images."

E. A "Fileserver" is "a Networked Device or Program that Manages Access to One or More Separately Stored Files."

As with the term "communicatively coupled," Audible proposed that the term "fileserver" in Claim 11 is limited to a fileserver that operates over a "closed [*38] network." The court has already addressed that contention. At oral argument, the parties conceded that there is no other material difference between their proposed definitions. The court therefore construes the term "fileserver" to mean "a networked device or program that manages access to one or more separately stored files."

F. A "Transactional Database" is a "Structured Computer Memory for Storing and Accessing Data Related to Transactions."

Claim 11 covers a "transactional database." The specification explains that this database "records and stores information related to each transaction performed at each point-of-sale site," and is capable of "transmit[ting] sales data to a requesting publisher." 823 Patent at 2:7-12. Because the court finds no material difference between the parties' proposed definitions, it construes the term to mean "a structured computer memory for storing and accessing data related to transactions," as this definition reflects the ordinary meaning of the term and the disclosure of the database in the specification.

G. Construing the Encryption-Related Terms

The terms remaining for construction all relate to encryption technology. [*39] In each claim in which a form of the verb "encrypt" appears, the verb's direct object is "information," and more specifically information transferred to a user's storage media. 823 Patent Claims 1, 3, 6, 17, 19. As both parties' proposed constructions demonstrate, to "encrypt" information is to alter the information in some way to prevent unauthorized access. This is consistent with the ordinary meaning of the term. Both parties agree that altering information by encoding or enciphering it is encryption. Audible contends that password or access code protection is not "encryption."

At oral argument, Digeo conceded that "encryption" in the patent requires some alteration of the information that the network transfers to the user's storage media. It also argued, however, that the patent does not specify what "information" must be altered. As an example, counsel suggested that adding a "key" or

"header" to a media file and then scrambling the key or header during transfer would be a form of encryption.

1. "Encrypt"

The 823 Patent elaborates the meaning of "encrypt" in its discussion of the three levels of encryption it provides. 823 Patent at 15:18-20. The first is "pre-transport" [*40] encryption of information by publishers before it is placed into the network system. Id. at 15:19-23. The second level is encryption by the network before transmitting data to the "book bank" or other local units. Id. at 15:23-24. The third level is an encryption process that occurs when information is transferred from the book bank or local unit onto a user's storage media. Id. at 15:29-31.

The patent devotes little discussion to the first two levels of encryption. Pre-transport encryption receives no attention. The second level of encryption, which is the initial encryption that the patented system performs, is intended to "make the data ready for being transmitted with less risk of unauthorized use while being transmitted through a communications network." Id. at 5:64-66. The inventors note that "standard available encryption protocols" are available to perform this level of encryption. Id. at 6:1-3. The discussion of these "well-known encryption algorithms" shows that encryption is not merely protecting data from access with a password or authorization code. Id. at 15:59-6:9. Encryption requires enciphering the information.

The patentees often described [*41] the third-level encryption process as "dynamic encryption." Dynamic encryption is a process that combines disparate sources of authorization into an encryption format that one can only decipher by reproducing the same combination of sources. The patent describes this concept in several ways:

> A "dynamic" encryption process is utilized so that only the electronic reader associated with the user card used to access the information from the Book Bank and download the information to the user storage cartridge can be utilized to display the information in an understandable text format.

Id. at 4:11-16.

> Dynamic encryption refers to the process in which the Book Bank works together with the storage media to perform a proprietary encryption of downloaded data.

Id. at 15:18-20.

> Specifically, [dynamic encryption ensures that] data storage medium accessible from one reader/computer will not be accessible using another reader/computer unless such access has been prearranged. . . .

Id. at 15:53-58.

The patent provides a single example of how to implement a dynamic encryption system, although it notes that many other methods are available. [*42] Id. at 16:10-12. The example provides for numbering the letters of the alphabet from 1 to 26, and then "shifting" each number a fixed number of spaces based on the last digit of a serial number electronically embedded in the user's storage media. Id. at 16:12-43. The user's password is then converted to a number that dictates intervals at which the code is re-shifted. Id. at 16:43-67. No one could de-

code the resulting data without both the user's password and the last digit of the electronic serial number from the user's storage media.

The court notes that although the asserted claims of the patent are focused on the final level of encryption, that encryption process need not be the dynamic encryption process described above. Under the doctrine of claim differentiation, the court must construe an independent claim to avoid nullifying claims that depend from it, unless there is compelling evidence for a nullifying construction. Liebel-Flarsheim Co. v. Medrad, Inc., 358 F.3d 898, 910 (Fed. Cir. 2004) ("[T]he presence of a dependent claim that adds a particular limitation raises a presumption that the limitation in question is not found in the independent [*43] claim."). Claim 1 requires a local unit "configured to encrypt" information at time of transfer to a user, whereas Claim 3, which depends from Claim 1, requires that the local unit be "further configured to utilize information stored on the electronic storage media to encrypt," which is the defining feature of the "dynamic encryption" illustrated in the patent. 823 Patent at 15:14-16 ("Dynamic encryption refers to the process in which the Book Bank works together with the storage media to perform a proprietary encryption of the downloaded data."). Thus, if Claim 1 required the dynamic encryption method exemplified in the written description, then Claim 3 would be at least partially redundant. The court concludes that the bare term "encrypt" is not coextensive with "dynamic encryption."

The patent's discussion of encryption reveals that while an encryption process can employ a password, it must ultimately encode information, not merely create a barrier to accessing the information. A process that merely required a password without altering information would not encrypt information. The patent claims do not, however, specify a particular type of "information" to be encoded, see supra [*44] Part III.D, and the court finds no basis in the intrinsic evidence for imposing such a limitation. The court therefore construes the term "encrypt" to mean "to encipher or encode by altering information."

2. "Configured to Encrypt"

The parties also seek an interpretation of "configured to encrypt." The ordinary meaning of this phrase is "capable of encrypting." The specification reinforces this meaning when it notes that the invention's "delivery systems have the *capability* of performing dynamic encryption of data as the data is downloaded onto a user's storage media." Id. at 15:11-13 (emphasis added). Audible suggests that encryption is mandatory, but the court finds no support for that contention in the intrinsic evidence.

As Digeo noted at oral argument, it might be preferable to encrypt all data transferred to an end user, but nothing in the patent requires it. "Configured to encrypt" means "capable of encrypting."

3. "Encryption Means for Dynamically Encrypting"

Finally, the court must construe the term "encryption means for dynamically encrypting information" in Claim 6. Because the term contains the phrase "means for," there is a rebuttable presumption [*45] that it is in the "means-plus-function" format of 35 U.S.C. § 112. Gemstar-TV Guide Int'l, Inc. v. ITC, 383 F.3d 1352, 1361 (Fed Cir. 2004). Although Digeo refuses to concede that "encryption means for dynamically encrypting" is in means-plus-function format, it also fails to provide evidence to rebut the presumption. The court must therefore construe the term under 35 U.S.C. § 112.

Once a court has identified a means-plus-function claim, it must clarify what function the term recites, and then must hunt in the specification for "structure" that fulfills the stated function. Micro Chem., Inc. v. Great Plains Chem. Co., 194 F.3d 1250, 1258 (Fed. Cir.

1999). A court must interpret a means-plus-function claim to encompass "all structure in the specification corresponding to that element and equivalent structures." Id.

In this case, the function is "dynamically encrypting" information, and the corresponding structure is structure to implement the only dynamic encryption scheme that the patent describes. The dynamic encryption method is the multi-tiered alphabet shifting approach described in the specification [*46] from Column 16 line 10 to Column 17 line 27. The term "encryption means for dynamically encrypting" therefore means "structure (most likely software) for implementing the dynamic encryption method described from Column 16 line 10 to Column 17 line 27, and its equivalent structures."

IV. CONCLUSION

Now that claim construction has concluded, the parties' next task is to exchange expert reports on infringement and invalidity issues. Under the court's current scheduling order (Dkt. # 14), the date for exchanging these reports is April 14, 2006. The court extends that date to April 26, and extends the date for rebuttal reports to May 26. All other dates set forth in the scheduling order shall remain the same.

Because the construction of these claims did not necessitate reliance on extrinsic evidence, the court **DENIES** as moot Audible's motion to exclude the expert testimony of Dr. John Strawn (Dkt. # 35).

Dated this 27th day of March, 2006.

JAMES L. ROBART

United States District Judge